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Université de Lorraine

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Sous la direction des professeures Isabelle Gaudy-Campbell et Anita Fetzer

De la clivée en *th-* à la structure *the-N-is* en anglais oral : vers une lecture discursive, prosodique et dialogique.

Volume 2, accompagné d'une clé USB

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Introduction

Ce volume d'annexe est un complément au volume principal. Il contient des informations relatives au corpus que nous avons constitué dans le cadre de la thèse, des données que nous avons extraites à partir du corpus, ainsi que des extraits étendus d'occurrences du corpus qui ont été analysés dans le volume principal. La clé USB qui l'accompagne permet de le consulter sous son format électronique, qui a l'avantage de présenter des liens hypertextes rendant l'accès à l'audio plus aisé. Cette introduction permet de détailler le contenu des différentes annexes.

L'annexe 1 est une notice d'utilisation de la version électronique du corpus, accessible sur la clé USB. Celle-ci détaille la manière dont les données ont été classées électroniquement et a pour but de faciliter l'exploration des dossiers informatiques.

L'annexe 2 comporte des métadonnées relatives au corpus. Pour chacun des fichiers audios que nous avons exploités, il est possible d'obtenir des informations en ce qui concerne le nom que nous lui avons attribué, la durée ainsi que le nombre approximatif de mots. Un lien internet permet également d'accéder au site web à partir duquel nous avons récupéré l'audio, libre de droit.

L'annexe 3 correspond à un relevé manuel des 569 occurrences que nous avons relevées dans le corpus. Elles sont présentées avec leur co-texte et un lien hypertexte qui permet d'écouter chacune des occurrences.

L'annexe 4 vient en complément du chapitre 9 du volume principale, qui traite de la fonction macro-structurante des structures étudiées à l'échelle du discours. Dans la mesure où étudier la structuration du discours demande d'analyser des discours dans leur entièreté, nous avons préféré retranscrire les passages étendus que nous avons étudiés dans le volume d'annexe, afin de gagner en fluidité dans le volume principal. Les transcriptions sont également accompagnées de capture d'écran sous Praat.

L'annexe 5 centralise les relevés quantitatifs que nous avons effectués dans les différents chapitres des parties 2, 3 et 4 du volume principal. Ces données sont rassemblées au sein de différents tableaux qui présentent à la fois la fréquence en pourcentage ainsi que la fréquence brute.

Annexe 1 : Notice d'utilisation du corpus

électronique

La version électronique du corpus qui a été constitué dans le cadre de cette recherche est accessible depuis la clé USB jointe au manuscrit de la thèse. Cette clé comporte d'une part la version électronique de la thèse ainsi que des annexes et d'autres part un dossier intitulé « corpus » qui comprend l'ensemble des données.

Le dossier corpus comprend deux dossiers. Le premier dossier, « fichiers entiers », correspond aux fichiers textes et sons qui ont été exploités dans leur intégralité. Tous ces fichiers sont répertoriés en annexe 2, qui présente également certaines métadonnées relatives à ces fichiers. Le second dossier, « analyse occurrences sous Praat », correspond au relevé manuel des occurrences qui ont été exploitées dans le cadre de cette thèse. La transcription des 569 occurrences relevées et de leur co-texte élargi est accessible en annexe 3. Chaque dossier contient alors une version audio (.wav) de chacune des occurrences, qui est associée à un fichier *textgrid* (.TextGrid) qui peut être visualisé à l'aide du logiciel Praat.

La classification au sein de ces dossiers reflète le découpage en trois sections du corpus. Ainsi, qu'il s'agisse du dossier « fichiers entiers » ou « analyse occurrences sous Praat », celui-ci comporte trois sous-dossiers : « débat parlementaire », « podcasts radiophoniques » ainsi que « communications scientifiques ». En ce qui concerne le dossier permettant d'accéder au relevé d'occurrences, chacun des fichiers audios présente son propre dossier, qui porte le nom du fichier audio. Chaque occurrence présente alors son propre dossier au sein duquel se trouve l'extrait audio (.wav) ainsi que le traitement sous Praat.

Chaque occurrence du corpus s'est vu attribuer un nom composé de chiffres et de lettres. Les trois premières lettres indiquent la section du corpus qui est concernée. Nous retrouvons ainsi « BBC » pour les podcasts radiophoniques, « PAR » pour le débat parlementaire et « TED », « RL - JS », « RL - GP » ou « WYA » pour les communications scientifiques. Chaque podcast et chaque communications scientifiques ont ensuite reçu un numéro qui permet de retrouver le fichier audio duquel les occurrences sont extraites. Les occurrences relevées au sein du corpus ne présentent pas une numérotation linéaire. Au sein de l'annexe 3, il est ainsi fréquent d'observer un saut dans la numérotation des occurrences du corpus. Ceci est dû au fait qu'au

début de notre recherche, nous avons inclus dans ces occurrences d'autres marqueurs de réagencement qui n'ont finalement pas retenu notre attention dans le cadre de cette thèse.

Enfin, nous rappellerons les conventions de transcriptions qui ont été utilisées dans le cadre de cette thèse. Les fichiers textes entiers n'ont pas fait l'objet de transcriptions et de codages minutieux. Seules les occurrences relevées en annexe 3 présentent ces informations.

Conventions de transcriptions adaptées de Delomier et Morel (1986 : 158) :

- // les caractères notés entre deux / indique qu'une autre voix intervient de manière brève
- , indique une pause, même brève (, / ,, /,,, selon la durée de la pause)
- e OU erm indique un phénomène d'hésitation audible
- : indique un allongement d'un son
- MAJ indique une prononciation appuyée
- ° ° les caractères notés entre deux ° indiquent qu'ils ont été prononcés sur un ton plus bas que les paroles qui les encadrent
- [LAUGH] les crochets indiquent la présence d'un événement non-linguistique (rires, applaudissements...)
- [???] indique un événement qui n'a pas pu être transcrit

Annexe 2 : Données et sitographie corpus :

1. Podcasts BBC Radio4

Nom fichier	Emission radio	Date	Titre	Durée	Nombre de mots	Liens
BBC1	Inside Science	11/05/2017	Violins - Social Networks and Cliques in Great Tits and Snow Monkeys - Exploring DNA and Art	27 min 47	4408	https://www.bbc.co.uk/programmes/b08p5lc2
BBC2	Inside Science	13/07/2017	Genetic Testing Pugs on Treadmills Frankenstein	27 min 49	4296	https://www.bbc.co.uk/programmes/b08x4rq3
BBC3	Inside Science	30/03/2017	Climate Change and Extreme Weather; Primate Brain Size; Earthquake Forecasting; Planet 9	27 min 45	3984	https://www.bbc.co.uk/programmes/b08k1b1l
BBC4	Word of Mouth	15/02/2016	Taking Turns in Conversation	26 min 04	5146	https://www.bbc.co.uk/programmes/b06zryhp
BBC5	The life scientific	03/10/2017	Lucy Green on the Sun	28 min	4941	https://www.bbc.co.uk/programmes/b096hcck
BBC6	Word of Mouth	14/02/2017	Intonation: the music of speaking	26 min 43	4797	https://www.bbc.co.uk/programmes/b08dnrqd
BBC7	The Listening Project	02/06/2019	Cultural Differences	3 min	635	https://www.bbc.co.uk/sounds/play/m0005mg2
BBC8	Inside Science	14/09/2017	Farewell To Cassini: The Epic 20 year mission to Saturn	30 min	4748	https://www.bbc.co.uk/programmes/b093104w
BBC9	Inside Science	17/08/2017	Antartica's Volcanoes Science Book Prize Nominee Mark O Connell US Solar Eclipse	30 min	5115	https://www.bbc.co.uk/programmes/b090vdfk
BBC10	Start the Week	03/07/2017	From Darwin to Big Data with Richard Dawkins	39 min37	8357	https://www.bbc.co.uk/programmes/b08wmjvg
BBC11	Start the week	06/05/2017	Inventing the Self Fact and Fiction	43 min	8837	https://www.bbc.co.uk/programmes/b08sks0w
BBC12	You and yours	10/01/2014	Cinema Attendance	5 min 38	1399	https://www.bbc.co.uk/programmes/b03nt84c
BBC13	The Listening Project	28/04/2019	Challenges of Parenthood	3 min 24	668	https://www.bbc.co.uk/sounds/play/p0775mpg

BBC14	Midweek	05/03/2008	Natasha Wood	8 min 05	2014	www.bbc.co.uk/radio4/factual/midweek_20080305.shtml
BBC15	The Listening Project	24/03/2019	Suddenly Everything Changes	3 min 45	818	https://www.bbc.co.uk/programmes/p073zpzr
BBC16	The Media Show	07/11/2018	Why Channel 4 is on the Move	28 min	6089	https://www.bbc.co.uk/programmes/m00010z0
BBC17	Midweek	18/01/2012	Rosie Wilby	7 min 17	1352	https://www.bbc.co.uk/programmes/b019fxj7
BBC18	Women's Hour	21/11/2018	The Great Grand-Daughter of Emmeline Pankhurst on the Campaign to Get More Women into Parliament	37 min 30	6437	https://www.bbc.co.uk/programmes/m000178s
BBC19	The Listening Project	05/01/2020	In the Friendship Zone	2 min 57	682	https://www.bbc.co.uk/sounds/play/m000cyvr
BBC20	The Listening Project	29/12/2019	Beginnings and Belonging	2 min 59	487	https://www.bbc.co.uk/programmes/p07ycyzq
BBC21	The Listening Project	22/12/2019	Family, Friendship and Fitting in	3 min 47	733	https://www.bbc.co.uk/programmes/p07x0m8t
BBC22	The Listening Project	22/12/2019	Family, Friendship and Fitting in	2 min 42	598	https://www.bbc.co.uk/programmes/p07ycqpz
BBC23	The Listening Project	08/12/2019	All about Relationships	3 min 02	638	https://www.bbc.co.uk/programmes/p07x0m8t
BBC24	The Listening Project	08/12/2019	All about Relationships	3 min 10	684	https://www.bbc.co.uk/programmes/p07x0m8t
BBC25	The Listening Project	15/12/2019	Approaching Adulthood	2 min 56	539	https://www.bbc.co.uk/programmes/p07xnzmx
BBC26	The Listening Project	13/10/2019	The Joy of Belonging	2 min 56	647	https://www.bbc.co.uk/programmes/p07q3r6r
BBC27	The Listening Project	13/10/2019	The Joy of Belonging	3 min 43	701	https://www.bbc.co.uk/programmes/p07q3r6r
BBC28	The Listening Project	24/11/2019	All about Reliance	3 min 02	582	https://www.bbc.co.uk/programmes/p07vpyrx
BBC29	The Listening Project	11/08/2019	If You've Got It, Flaunt IT	3 min 07	722	https://www.bbc.co.uk/programmes/p07j4lg5
BBC30	The Listening Project	09/02/2020	The Dark Side of Comedy	2 min 48	621	https://www.bbc.co.uk/programmes/p082hfc3
BBC31	The Listening Project	15/03/2020	It's Your World Now	7 min 45	1921	https://www.bbc.co.uk/programmes/p086k1lm

2. Communications scientifiques

Nom fichier	Emission radio	Date	Titre	Durée	Nombre de mots	Liens
TED1	Ted Talks	févr-16	Our Refugee System is Failing, Here's How We Can Fix It	18 min	2632	https://www.ted.com/talks/alexander_betts_our_refugee_system_is_failing_here_s_how_we_can_fix_it/
TED2	Ted Talks	juin-16	Why Brexit happened and what to do next	17 min	2497	https://www.ted.com/talks/alexander_betts_why_brexit_happened_and_what_to_do_next?
TED3	Ted Talks	juil-09	I Believe We Evolved from Aquatic Apes	17 min	2363	https://www.ted.com/talks/elaine_morgan_says_we_evolved_from_aquatic_apes
TED4	Ted Talks	juil-05	Why the Universe Seems so Strange	21 min 30	2105	https://www.ted.com/talks/richard_dawkins_on_our_queer_universe?
TED5	Ted Talks	nov-16	Activism Needs Introverts	14 min	2472	https://www.ted.com/talks/sarah_corbett_activism_needs_introverts/
TED6	Ted Talks	sept-15	How Frustration Can Make Us More Creative	15 min 30	2249	https://www.ted.com/talks/tim_harford_how_messy_problems_can_inspire_creativity/
TED7	Ted Talks	juin-15	Climate Change is Happening, Here's How we Adapt	14 min	2229	https://www.ted.com/talks/alice_bows_larkin_we_re_too_late_to_prevent_climate_change_here_s_how_we_adapt/
TED8	Ted Talks	juil-09	A New Way to Explain Explanation	16 min 30	1831	https://www.ted.com/talks/david_deutsch_a_new_way_to_explain_explanation/
TED9	Ted Talks	avr-17	The Refugee Crisis Is a Test of our Character	18 min 30	2681	https://www.ted.com/talks/david_miliband_the_refugee_crisis_is_a_test_of_our_character/
TED10	Ted Talks	juin-14	What Humans Can Learn From Semi-Intelligent Slime	12 min	1736	https://www.ted.com/talks/heather_barnett_what_humans_can_learn_from_semi_intelligent_slime_1/
TED11	Ted Talks	févr-17	The Fascinating Physics of Everyday Life	16 min	3067	https://www.ted.com/talks/helen_czerski_fun_home_experiments_that_teach_you_physics/
TED12	Ted Talks	févr-13	Can Technology Solve our Big Problems	10 min	1301	https://www.ted.com/talks/jason_pontin_can_technology_solve_our_big_problems/
TED13	Ted Talks	nov-12	Beware Neuro-bunk	11 min	1615	https://www.ted.com/talks/molly_crockett_beware_neuro_bunk

TED14	Ted Talks	juin-13	Why do we Sleep	21 min 30	3502	https://www.ted.com/talks/russell_foster_why_do_we_sleep
TED15	Ted Talks	juin-12	The Mysterious Workings of the Adolescent Brain	14 min	2472	https://www.ted.com/talks/sarah_jayne_blakemore_the_mysterious_workings_of_the_adolescent_brain
TED16	Ted Talks	mars-15	Why we Laugh	17 min	3066	https://www.ted.com/talks/sophie_scott_why_we_laugh
TED17	Ted Talks	févr-13	The Voices in my Head	14 min	2389	https://www.ted.com/talks/eleanor_longden_the_voices_in_my_head
TED18	Ted Talks	juin-12	Ben Goldacre	13 min	2309	https://www.ted.com/talks/ben_goldacre_what_doctors_don_t_know_about_the_drugs_they_prescribe
TED19	Ted Talks	juil-11	Battling Bad Science	14 min	2807	https://www.ted.com/talks/ben_goldacre_battling_bad_science
TED20	Ted Talks	avr-16	Why We're so Bad at Statistics	15 min 30	2176	https://www.ted.com/talks/alan_smith_why_we_re_so_bad_at_statistics
TED21	Ted Talks	juil-05	How Juries are Fooled by Statistics	21 min 30	4114	https://www.ted.com/talks/peter_donnelly_shows_how_stats_fool_juries
TED22	Ted Talks	avr-12	Fighting with Non-Violence	15 min	1820	https://www.ted.com/talks/scilla_elworthy_fighting_with_non_violence
TED23	Ted Talks	sept-13	The Smelly Mystery of Human Pheromone	15 min 30	2257	https://www.ted.com/talks/tristram_wyatt_the_smelly_mystery_of_the_human_pheromone
TED24	Ted Talks	févr-05	Why would God Create a Tsunami	19 min	2295	https://www.ted.com/talks/tom_honey_on_god_and_the_tsunami
TED25	Ted Talks	avr-10	Why we Need the Explorers	16 min	2923	https://www.ted.com/talks/brian_cox_why_we_need_the_explorers
TED26	Ted Talks	mars-08	On CERN's Supercollider	14 min 30	2636	https://www.ted.com/talks/brian_cox_on_cern_s_supercollider
TED27	Ted Talks	avr-18	What are the Most Important Moral Problems of our Time ?	11 min 30	1658	https://www.ted.com/talks/will_macaskill_how_can_we_do_the_most_good_for_the_world
TED28	Ted Talks	avr-18	The Nightmare Video of Children's Youtube and What's Wrong with the internet today	16 min	2925	https://www.ted.com/talks/james_bridle_the_nightmare_videos_of_childrens_youtube_and_what_s_wrong_with_the_internet_today
TED29	Ted Talks	nov-14	What Happens When a City Runs out of Room for its Dead	8 min 30	1564	https://www.ted.com/talks/alison_killing_what_happens_when_a_city_runs_out_of_room_for_its_dead
TED30	Ted Talks	juil-05	Our Place in the Cosmos	19 min	2749	https://www.ted.com/talks/david_deutsch_on_our_place_in_the_cosmos?

WYA	Oxford Alumni Weekend	juin-09	Pheromones: what animals (including humans) say with smell	61 min	9624	http://podcasts.ox.ac.uk/pheromones-what-animals-including-humans-say-smell
RL - GP2	Reith Lecture	2013	Beating the Bounds	42 min	7899	https://www.bbc.co.uk/programmes/b03dsk4d
RL - GP3	Reith Lecture	2013	Nice Rebellion, Welcome In!	42 min	7197	https://www.bbc.co.uk/programmes/b03f9bg7
RL - JS1	Reith Lecture	2019	Law's Expanding Empire	57 min	8080	https://www.bbc.co.uk/programmes/m00057m8
RL - JS2	Reith Lecture	2019	In Praise of Politics	42 min	5685	https://www.bbc.co.uk/programmes/m0005f05

3. Débat parlementaire

Nom fichier	Emission	Date	Titre	Durée	Nombre de mots	Lien
PAR	débat parlementaire	29/03/2019	MPs Debate and Vote on the Withdrawal Agreement with the European Union	5h	44206	https://www.parliament.uk/business/news/2019/march/mps-debate-and-vote-on-the-withdrawal-agreement-with-the-european-union/

Annexe 3 : Occurrences en contexte

1. Podcasts radiophoniques

BBC1	Inside Science	Violins - Social Networks and Cliques in Great Tits and Snow Monkeys - Exploring DNA and Art	https://www.bbc.co.uk/programmes/b08p5lc2
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BBC1 - 1/2

Oh that's almost impossible to tell, I think, so these are my comments, well initially, **my first comment is**, waou thank you what a TREAT, [laugh] don't usually get this on inside science, so that's lovely, **the second thing is**, the FIRST violin I think ha:d, a richer lower register,, a:nd THAT is what makes ME think that that was the older the the guadagnini,, but I don't know [laugh] I'm just squabbling around in the dark here I've got no idea really

BBC1 - 8

well for me, they generally do I've had an opportunity to play a variety of old instruments, and **the THING about these old instruments is** that, they are well played in generally °I mean obviously I am not counting museum instruments here° but if you take ANY,, soloist who is regularly playing their instrument that instrument is gonna be sounding its MAXimum

BBC1 - 17/17'/18

so for example you remember, in the uk not that long ago and even still now there is a big debate on the: calling of badgers, and **the main impetus for that is** to reduce bovine tuberculosis because, they have that path they move between those populations since the badgers are reservoir for infection, and so, there is a lot of questions about how to approach this,, so **one idea would be**: I'm not a proponent necessarily of calling it but, if you understood which badgers were most likely to be infected, you can actually TARGET, your intervention strategy, this might also happen I know in the world of primatology people now talk more and more about, if you have outbreaks in critically endangered apes, for example, it might be better to interVENE and **one way to do that would be**, to USE information you KNOW about social groups or species and how those agents move through them and target THOSE individuals that you think would have the most IMPact on stopping the spread of disease

BBC1 - 19

right so: we know that whenever you: come into contact with someone you can get infected but, **one thing that that researchers, including our lab has started to look at is**, to what exTENT are the social networks, you know outright BAD or are there some benefits as WELL to you think of how the network itself is structured, so if you have a network where everybody is basically connected to each other, very strongly very deeply, then you can easily see how infectious organisms of all kinds will just, pass back and forth you know at the speed of light basically with a single contact, but if you've got a lot of clusters you know cliques, for example, that means your network is more modular you can actually STOP, the spread of infection in large social groups and so it might at some point be beneFicial, to have your cliques most people don't like the word they don't like seeing cliques, but they may actually be stopping you from getting sick

BBC1 - 20

Well for us as artists we were interested in in the processes of things and the the actually processes that, Julian was describing, you know it's a story in history beHIND, appealed and how one might tackle that from a point of not really knowing much about SCIENCE, **part of the idea of an artist residency in [??] a different discipline, is** to: bring you to new ways of working new ways of looking

BBC1 - 24/25

S1 : For me as well I really loved the fact it's a really refreshing, way of looking at the work that I do so, we've been looking at things like mutations through time and how we tell people apart and so **some of the things that e, Ruth and Julian have been WORKing with have been** this little co

S2 : You brought some inforce

S1 : yeah so these are like little conical flasks °well not really conical° so these are like the little, what do you call that?

S1 : beakers you're the scientist [laugh]

S2 : I'm supposed to know this [laugh] terrible I know,, but **one of the things that, that Ruth and Julian have been DOing is** they have been working with our scientific glassblower, and they've just been putting so little indentations on them, and then when you actually put these i:n, light and you shine the light through them in a particular way you can actually see those indentations,/mm/ it's like the m yeah it's the magnification of these tiny little mutations, so that you can see them shape and that's a bit like our DNA some of the mutations have happened you don't really see anything OTher ones you can see quite big changes

BBC2	Inside Science	Genetic Testing Pugs on Treadmills Frankenstein	https://www.bbc.co.uk/programmes/b08x4rq3
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BBC2 - 3/4/5

the other one which is reCEssive disease is when, e the disease is only caused when both parents have a SPELLing mistake but they've got one good one ba:d, and then the child gets two bad °one from each parent°, so **one of the things important things in these genetic diagnoses is** you don't only sequence the genome of the CHILD you also whenever possible sequence of genome the PARENTS, and even that diagnosis is really transformative so many many, studies now show that, two things happen when a diagnosis happens, **so one is** that the: PArnts and the medical system get more comforted about what's going on with that child, and they stop testing, exhaustively testing this child, although it's frustrating that that we can't necessarily change the outcome of the children, most families express, it's a huge relief actually that they understand what's gone wrong with their child, **the second thing is** if it's one of these mutation that happened in just their child, then you can say to the parents well if you DO want to have another child,, you are at quite a low risk of that same genetic disease occurring, then parents can make a more reasoned decision about whether they should have a second child

BBC2 - 7

S1 : but actually we're still in research made in a lot of cancer and getting this into the clinical loop is very hard, not least because most oncologist will want to make a decision one or two weeks, of first seeing a patient with a cancer,, **the other thing's** to do this slightly LAter in a cancer's journey in the unfortunate situation we have metastases

S2 : which is when it's spread in the body into secondary tissues

S1 : exactly

BBC2 – 11/11'12

so one solution potentially to this has been discussed is outbreeding, the **only slight problem with outbreeding is** you want to be VERY very careful about, which dogs you're actually breeding with, so we've seen some pug crosses, with Jack Russel TERries, we've seen some pug crosses with chihuahuas well chihuahuas they look just as bad if not worse so it's not easy working out which are the best breeds to use, **the other option is** potentially looking in different countries and one of my colleagues recently came back from Singapore, and she said there were French bulldogs walking around in Singapore with no problems at ALL so maybe if we look at different country that's another solution

BBC2 - 13

we are CERtainly seeing dogs coming in and **one of the major complaints is** sleep apnoea, and in humans we KNOW this is associated with lots of other morbidity, so I think it is a potentially good model

BBC2 - 19

of course, you know biology and how we get ill is is very very complicated so it shouldn't surprise anybody that, quite often that knowledge just leaves us to the point where you can say well, you've got THIS, you can counsel the parents but you can't CURE in the same way there's one or two cases reMARKable cases, where you really cannot because of that change I know that THIS, particular treatment is really gonna work for you, but **the MAJOR thing is** diagnosis, at the moment,, so I think we have to be balanced we're certainly not gonna cure every disease in a hurry

BBC2 - 20

yes so I think we're gonna have one of these journeys that we do with technology, whe:re we've got to work out where we use it where it's useful, that's true for cliNIcians, but as it becomes more routine it'll also be true fo:r the broader soCIeTy, so in some levels I'm positive about that **but the interesting question now is** how do we make sure that that has the fewest number of BUMPS, and the fewest amount of HARM as we go through that process, of of doing this, I've often wanted a genetics story line on Eastenders, I think that would really help [laugh] m: so if you're the eastenders scriptwriter I I think that can make some great story lines with, misattributed parentage a bit of genetics and other stuff

BBC2 - 21

that is completely correct so we've got two prompts to study one of them is looking at how we get the populations mo:re, HEALTHY and that's genetics and it's turning people to try and get their pugs, thinner so if Marvin was a really FAT pug **the first thing we'd probably do is** get him to lose some WEIGHT Marvin unfortunately is not a fat pug m, so MARvin is going for surgery tomorrow

		Climate Change and Extreme Weather; Primate Brain Size; Earthquake Forecasting; Planet 9	
BBC3	Inside Science		https://www.bbc.co.uk/programmes/b08k1b11

BBC3 - 9

now mike it's really nice to talk to about science not politics but **the fact of the matter is** that, when it comes to climate change these two are intrinsically linked so just FINally, you this paper, do you think it's the type of thing that might, sway the committee?

BBC3 - 12

that begins to make sense as a, [laugh] as a hypothesis underLYing this result,/mm/ now **one of the things about social interactions and higher cognitive functions is** that they're, GENnerally moderated by, specific areas of the brain that should be the COrtex and e and Sapiens us have very LA:rge cortexes so, this is not something you factored in your study so how is it

BBC4	Word of Mouth	Taking Turns in Conversation	https://www.bbc.co.uk/programmes/b06zryhp
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BBC4 – 1/2

S1 : you know I'm imagining if I'm a: athletic, superhero, I must be concentrating like CRAzy for that pistol whereas when we're talki:ng, what happens? we're not we're not concentrating like that are we?

S2 : So well em perhaps we are I mean **the thing is** that, what we have to do in order for this system to work, as you're speaking I have got to be deciding, what it is that you are on about, so, technically you're gonna make me an OFFER or make a REQUEST o:r, make a STatement or something, I've got to kind of categorize, what's coming in a:nd start to think about what kind of response I want to make

S3 : just oh there we are

S1 : and this we both came in at the same moment

S3 : I'm interrupting so I didn't take turn but can I just, **one fascinating thing here is** that you're talking about, a BRAIN that is doing two things at the same ti:me,, this is really worrying so not only am I preparing my question I'm also listening to your answer, SIMultaneously and human beings can do this

BBC4 - 3

S1 : and then as you stretch that gap longer and longer, now the brain's beginning to exPECT a no if you if you make it much longer gap so

S2 : that's so true /yes/ sometimes you ask a question and somebody doesn't answer immediately /yes/ you know **the answer is** gonna be no /yeah/

BBC4 - 4

S1 : so,, here's the early one,, which character, also called double o SEven

S2 : james bond

S3 : james bond

S1 : yeah, features in the famous movies I was gonna add [laugh]

S2 : Unnecessary

S1 : unnecessary e and then **the LONG version is** which character who features in the famous MOvies, is also called double o seven

S2 : sean connery

[laugh]

BBC4 - 5

S1 : ouh ouh ouh

S2 : it does feel funky gibbon please

S1 : oh no I wasn't being funky gibbons it's just that I like gibbons, and I've seen them in the zoo and that's the noise they make and I was just wondering if they take turns

S2 : they DO

S1 : they do ouh ouh and then another one goes ouhouh

S2 : they do

S1 : lovely

S2 : now **the peculiar thing is** that the GREAT apes, that's our NEArrest relatives do not

S1 : chimps and gorillas

S2 : they don't do that VOcally they don't do it vocally but they do it GESTurally, so they will e /ah /, contrary to a lot of reports they actually do: like, offer, food to a mate /yes / and then the other takes it

BBC4 - 6

yeah I think there's a lot going for that I think that's TRUE, I mean it's interesting though, that actually study a little bit about what people really talk about, we don't know that enough about this / sure / but e: **one of the place that I've been working is** in with mine Indians in Mexico, and instead of talking about the WEATHER they talk about their,, AILments e [laugh]

BBC4 - 7/8

S1 : I've been in a situation where turn taking didn't take place I was invited to speak, e: up in the mountains in british columbia with some first nation people, and there was a completely different rule system operating which seemed to be:, that, if a main person was talking and because I was the inviTEE I was the person who was going to talk about, reading and the importance of reading and so on, that, **the deal was** that nobody SPOKE, and nobody interrupted nobody volunteered to speak even unless they were asked to SPEAK, so there was an immediate sort of inbuilt hierarchy and respect system that preVENTed any of the kind of normal thing that you, I've used the word NOrmal how awful

S2 : your normal, your normal

S1 : no no that was terrible I withdraw it immediately **what I mean is** that, the thing I was used to, °altogether different°, **the THING I was used to was** that I would get to the end and people would, chip in chip in across each other, perhaps interRUPT, and we would have a conversation about reading, but inSTEAD it was complete silence, and they were waiting for me to TURN to someone and say do you have anything to say

BBC4 - 9

you know, you know google search works on the statistical e: likelihood of one word following another and so on / yeah / and we can pretty much match that we can do that just as well, so I I think m I think we're pretty good at it but what we really are sensitive to is if you like minor peccadillos whe:re you're breaking what I take to be you know a fundamental, poLiteness e: [laugh] rule and I think that, **the point is** that also, that, EVEN when people follow the rules they can apPLY the rules in a way that's if you like unfair, so some people are very fast at coming in so I have my turn, either of you could come next but maybe Laura is faster than Michael, and then she can get more TURNS that way and that's irritating

BBC4 - 10

There is a taboo because we should just be able to manipulate the system to our benefit we ought to be able to, come in on the DOT, and just beat you to be e to the: e to the response so you just have to look at how people manage to sort of hog the floor,, e **ONE of the ways to do it for example, i:s** to just tell lots of funny JOKES and we ALL know people who're REALLY good at this,, they can just keep us laughing

BBC5	The life scientific	Lucy Green on the Sun	https://www.bbc.co.uk/programmes/b096hcck
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BBC5 - 7'

it is a very curious place, and I remember when I went for my PhD interview so: okay °bear in mind I was leaving in Brighton, cosmopolitan city, everything on your door step° from guildford I was picked up of the DRIVER, of the MSSSL a:nd he drove me then into the countryside we were going down progressively smaller, and smaller country roads, and then we went up this sort of single track lane up this hill,, and by that point I was thinking I can't possibly come and work here this is in the country side you know where is the local PUB where where is the bus stop °you know° there was there was really nothing m and then you arrive and you see this victorian mansion, and i went inside, and **the first thing you see is** wood panelling, then you see the skylight rocket, then you see the test facilities, and then you speak to the scientists who inFUSE about their WORK, and I thought no actually I do want to come here this is the best place of the universe

BBC5 - 9

S1 : and and the croquet lawn and and swimming pool are a bonus

S2 : yeah they are bonus you're right because that's the that's the bonus of working in a victorian mansion so, so we have fun in the countryside as well and and **the really nice thing is** that, because I'm surrounded by engiNEERS, we can FIX everything we have on SITE, so when the swimming pool pump BREAKS we can fix it [laugh]

BBC5 - 10

at mssl, I started looking at,, WHY coronal mass injections happen, back in that time,, coronal mass injections HAD been known about fo:r just over twenty years, so you might think well, surely we'd understand,, how they form but we didn't, so very early on I got interested in WHAT is it that, enables them to become eruptive because **another thing to keep in mind is** that these coronal mass injections, have the mass of a mountain, so how do you eJECT that material

BBC5 - 11

it is very violent and very dynamic so it's CHANging second to second hour to hour day to day, and I think **the way to conceptualise it is** to think of the sun as being a spherical bowl of FLUID, but electrically charged fluid, and that has a special consequence in that the magnetic field that threads THROUGH it, is actually, we call it frozen in, so as the fluid MOVES, it DRAGS the magnetic field with it, and it's a bit like taking, elastic bands and stretching them and twisting them

BBC5 - 15

In some sense it has been a slow burner because I remember, also in the previous solar cycle, feeling the space weather impact and understanding it but at that point in time it wasn't deemed to be a significant risk, but around two thousand ten two thousand eleven, the solar activity was picking up,, and I think a few things happened at the same time, **one was** that we had a particular, science minister coming David Willets, who: was very interested in space science, very knowledgeable, and underSTOOD the risks that space weather presented, and we also have the creation of the UK space agency, which gave an opportunity to be more COOrdinated, in our efforts i:n not only space science but in particular in space weather, and I think THOSE two things were were key

BBC5 - 20/21

And so, over the last well several years in fact, people have been coming together to think about WHAT do we need to have, and in the UK in particular, there was a lot of work o:n, what we call the Carrington mission, °after the Carrington event°, and **the idea is** that we would build a spacecraft, LAUNCh it not into earth orbit but to a point in the solar system called the fifth Lagrange point, and THAT is if you imagine a line between:n , us here on earth and the sun, and you take an ANGLE away from that line of SIXTY degrees, trailing the earth and its orbit that's where we would put spacecraft, and from THE:RE you could look at the Sun,, and as it rotates you could SEE: the structures that form coronal mass ejections FORMing earlier cause you're sort of looking aROUnd the sun, so you're seeing things before they become earth facing and also from that point you can look directly along the sun earth line so you can do what you're interested in you can SEE: these things coming more clearly, a:nd we've been working with the European Space Agency through the UK space agency, to have the funding in place to enable us to DO this, and we just finished to a project where we were, looking at what what instrument should be on board this spacecraft, and NOW we're moving into the pha:se where we will start to do some SErious work ON it, which is hugely exciting after years of preparations and thinking lobbying, and **the idea IS** that we would HOPEfully realize this spacecraft and have it launched in say 2023 something like that

BBC6	Word of Mouth	Intonation: the music of speaking	https://www.bbc.co.uk/programmes/b08dnrqd
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BBC6 - 3/4

e I am a Brummie myself, though I don't have a very strong brummie accent but I certainly couldn't e claim to be from the black country, but, I I hear what's NORMAL about what's NON distinctive about that e I think **the stereotype is** that west midlands intonation is very Different and very SINGsong, but actually, structurally it's almost identical to, to our intonation that we're using here in terms of the way you can hear and this transfers over into the the musical rendition of it that you can hear how the intonation is used to break the bits of speech up into chunks and I guess **the things that is distinctive is** that he's got a particular that sort of Birmingham rise fall rise

BBC6 - 5

S1 : there's THREE main functions that we use intonation for e that at the sentence level

S2 : in English

S1 : in English so we use it to BREAK the string of speech up into CHUNKS, / yeah/ and those can be very LONG chunks or SHORT chunks that's up to the speaker,, we use it to show where the prominent, syllables are where the STRONG syllables are in, so I'm using, intonation to say where the strong syllables ARE

S3 : this is helping with cognition as well isn't it? But for we for me trying to understand what you're saying

S1 : absolutely so we CHUNK, we put the BEATS in, as it were the prominence of the boards

S2 : Poets call that stress do you happen to call

S1 : yeah and then **the LAST way that we can manipulate things is** by the choice of the shape of the tune is it rising or falling and there's, arguably a sort of inventory of of tunes and tones that particular dialects and languages, habitually use, now beyond that we ALSO use those to group utterances together in discourse

BBC6 - 9

it's a common tune we use in ENGLISH but I guess **the point was** that he was giving it his own particular SPIN, he was clearly stretching out the last syllable of the WORD, to give himself room to FIT all of the tune on to it so we, if you've if you've got to up and down and then up again then sometimes you, you either have to add syllables you have to have a word with enough syllables on it to fit all those in or sometimes you can stretch /mm/ syllables and lengthen the the word

BBC6 - 10/11

S1 : that's why: I was particularly e: interested in getting to know something about, her" [piano plays]

S2: so that was Robert Paston late of this parish I think, m: now he's got various features **one that I always notice is** sometimes he spends a LO::NG time on one syllable, m and then suddenly accelerates and decelerates so I get a bit of, m rather unconventional stresses and speeds

S3 : **the thing that's unusual I think by his intonation is** his, ability to STRETCH and squeeze the the tune across, syllables or to squash lots of syllables into one

S4 : concatenating

S2 : concatenating is a way of thinking about it that particularly and then bulalalala that's ten syllables all squashed on to the same dur exactly the same duration

BBC6 - 13

am I right that we pick all this up, very EARly **the reason I ask you this Sam is** because, I can remember visiting somebody who had a PRE-speaking toddler,, so there I sat and we're talking and toddler's quiet apart maybe making cooing noises cause it doesn't yet speak, but when we went to to LEAVE and we're obviously all doing our °you know° putting on of our coats and going, the toddler went BYE, with completely perfect, intoNAtion /intonation/

BBC6 - 14

the manipulation of pitch that's used to do WORD meaning in a tone language, it's the same, physical activity and, auditorily it's the same thing, as what we're doing to change the meaning of SENTences, so **one of the thing an infant has to learn is,** what are we doing with pitch in this, language m and we know that infant display the same sort of, learning pattern, fo:r TONES as they do for individual consonants and vowels

BBC6 - 15

well the the sort of,, **the merging definition of uptalk is** that it is a RIing intonation used, on an utterance which, has a deCLArative meaning so it's a statement rather than, being a question

BBC6 - 17

S1 : it's why: MPs speeches prePAred speeches can be terminally BORing [piano plays]

S2 : the melody of laura wright, did you hear that?

S1 : I felt like, from margo fonteyn dances

S2 : you do, you do, that's right

S3 : and I think **the reason I picked that little clip out was** cause you do have that sort of, what we might call a hesitation / yes/ or something at the beginning

S1 : I'm quite aware actually

S3 : erm and yet in CONtext it sounded completely normal

BBC6 - 19

but I don't think that I think what I'm trying to show is that everybody does this, this is this is/that's a relief/ something that we all do and I I I, as a linguist I think **the thing that's interesting about intonation, is** that, like all language, it's the structure underneath it which means that, we're able to underSTAND each other,, regardless of the NOISE of actual performance of how things come out on the day

BBC6 - 20

S1 : m in English it's fairly standard that we would have, rising pitch to do things other than to do a question, questions aren't all rises and, all things with rises aren't questions, we would use intonation to do conversational structuring as well and to

S2 : so consistently over, multiple utterances

S1 : yeah so I think **the thing that's that's seems to be merging is** that in UPtalk, the function seems to be about checking comprehension, and seeking some kind of feedback saying are you with me

BBC7	The Listening Project	Cultural Differences	https://www.bbc.co.uk/sounds/play/m0005mg2
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BBC7 - 1

S1 : Yeah well I mean it's not even just her it's like she her and like a whole movement of people who just, like will take a THING, that like is from a culture and then like wear it and then it's like so acceptable on them but it's not acceptable o:n the people who actually CREATED it, it's like, no one say you can't put your hair in cornrows, put a bandeau on your head if you want to but be respectful of where it comes from,, and like understand that like, if someone from that CULture, let's you know how they feel about it like that there's not happy with you wearing it it's because it's like,, coming from their culture, /and/ and they have every right to feel a bit uncomfortable with it

S2 : and **the thing is** like people have such a problem with things not being FOR them

S1 : like when you people have dreads and i'm just like / why / I don't have I don't have the energy to explain to you why this isn't okay

BBC8	Inside Science	Farewell To Cassini: The Epic 20 year mission to Saturn	https://www.bbc.co.uk/programmes/b093104w
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BBC8 - 1/2

yeah you know w w w we've we've got models in mind, we think that there's a dynamo region, which is made up, probably of metallic hydrogen we know that Saturn is made up mainly of hydrogen, but if you've got a magnetic field being generated in in th in the interior you need currents to flow, and so you strip electrons off the hydrogen it becomes metallic and so currents can flow, but **the really strange thing about Saturn is** that, for a magnetic field to be generated in the interior **our understanding of how the planetary dynamo FORMS and operates is** that you need a TILT to exist between the rotation axes of the planet, and the magnetic axes

BBC8 - 3

and so they came up with this idea of, of DIving in between the rings and the top of the atmosphere to GO to a place that no other spacecraft e has been before and to to GET measurements that are just simply not possible, e any other WAY e and **the classic one I guess is, is** finding out how old the RINGS are I mean you know the there's quite a bit of dispute about, how the rings formed how old they are, erm you know their evolution through time

BBC8 - 8/9/10

the dimensions the main rings go out to about a hundred and thirty-six a hundred and thirty-seven thousand, kilometres but with the thickness of perhaps less than ten meters, so incredibly incredibly thin, so all of these are sort of giving you clues perhaps as to how they FORMed so if you think, okay you've got a almost pure ice ring system in Saturn, where where do you find ice in the solar system and **the natural thing especially after e Rosetti** you think of Comets you've got got icy objects but, **one of the theories that has been proposed** is that there were several sort of Titan-size moons, which would have had e an icy crust but perhaps a rocky CORE, and these got close to the planet possibly due to tidal forces, e bringing the moons in, and then it would then be destructed a:nd **the idea was that** the icy mantle would be sort of stripped to produce the rings and then the planet would kind of swallow the core of the of the satellite so there by you get a pure ice, ring system so, **one of the things we're obviously trying to do with Cassini is** as best as possible is to figure out where the rings came from

BBC8 - 11

so the history of astronomy teaches you not to put yourself at a special PLACE in the universe and, neither should you put yourself at a special TIME, in the universe we just happen to be around when Saturn has RINGS,, so, **one possibility is,** we're just looking at the latest version of Saturn's rings that the rings come and GO, but then you need an influx of these objects e whether they're from the ultrasolar system the the Oort cloud, or whatever to keep replenishing, the RINGS perhaps we have to face the fact that we just happen to have been lucky to be around when Saturn has this spectacular ring system

BBC8 - 13/14

S1 : but **one of the risk factors /yes/ for Enceladus** and especially going that close which is you know the GREAT, STUnning images which are now, world famous of these jets these plumes /mm/ of what we know now because of these flybys /yes/ these jets coming from at Enceladus which are water

S2 : that's right and organic material as well

S1 : and organic materials you see that's why people I meet BIOlogists, /yeah/ and space fans amateurs get excited about this because **what you've GOT, is** a load of pre-basic chemistry

S2 : absolutely you know you need four things for habitability for, life to potentially form you need e liquid WATER, you need a heat source, we saw that there was this hot spot at the south pole, lying right over, one of the cracks, one of the tiger stripes, and so there is essentially internal heat, you need organic material and then **the fourth thing you need** is for those, first THREE things to be stable over time, we've got three of the four at Enceladus

BBC9	Inside Science	Antartica's Volcanoes Science Book Prize Nominee Mark O Connell US Solar Eclipse	https://www.bbc.co.uk/programmes/b090vdfk
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BBC9 - 1

we actually had a geology, undergraduate student Max Van Wyk de Vries, he's exceptionally interested in volCAnoes and he posed the question about what we knew about, the locations of volcanoes beneath Antartica, **the answer to that was** well,, not a great deal we know that west Antartica is flanked by volcanoes, but as we only sort of had a conversation about, where might volcanoes be beNEATH the ice we realized that actually this has not really been, investigated in the way that it could have been

BBC9 - 2/3

yeah well I think that [??]Antarctica I think **the: biggest effects that we might think about is** the amount of water it would generate beneath the ice,, where does that water GO, how does it contribute to, whether the ice flow will accelerate in any given place, but we have to be very careful to distinguish between the facts that we KNOW that western Antarctica is already thinning for sure, and **the main reason for that is** climate or ocean warming, and I think if we DO find that these significant extend of active volcanism around all of these volcanoes,, it's more likely to be a bit of a secondary effects than the primary reason for west Antarctica slowly thinning and contributing to sea level rise

BBC9 - 12/12'

S1 : you are certainly ON a journey in this book it reads partly like a TRAVel log in places, you meet with remarkable people and go to some remarkable places,, **one place that you go is** to: one of these cryonic freezing labs or businesses ,you know where people can get themselves FROzen and possibly be THAWED out later on, tell us about these adventures e it sounds like something of rocky horror

S2 : **the idea is** that, the brains will be scanned, and the information contained in the brain which is essentially YOU according to this, philosophy, will be uploaded to a machine and you'll then sort of live, eternally, as a kind of a disembodied AI or uploaded to a robot and you will then take almost any form, imaginable

BBC10	Start the Week	From Darwin to Big Data with Richard Dawkins	https://www.bbc.co.uk/programmes/b08wmjvg
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BBC10 - 4

so Alex, **a misunderstanding about what maths is**, maths isn't getting the answers, maths is, a way of THINKing it's a creative way, a a CRitical way of thinking so that you can, SNIFF out what's right and what's wrong it's not actually, the finding it's the: it's the PROcess

BBC10 - 9

we use it now cause algorithms it's a great TOOL, and maths has always been a fantastic TOOL, but what I'm trying to say in my book, is that **one great role of mathematics for, a a millennia, has been** intellectual diversion a:nd amusement, and we shouldn't forGET that in this world where maths is kind of seen as TOUGH and scary, actually maths is FUN and everyone really understand that just, you know the popularity of sudoku for example the fact that m: the today program is not having a daily puzzle the puzzles I do in the guardian every two weeks, there's a huge amount of interest for it

[BBC10 - 14](#)

and this is,, kind the most viral puzzle ever because it's spread all around the world [??] hard push to find one civilisation that doesn't have some ver version, of of this and **the reason why it's fantastic puzzle is** that, there's no maths, it's funny it's amusing it's one [??] you want to solve it, but you are forced to use LOGic and logic reVEALS you, something very counterintuitive, which is, that to get everything across you need to take something across back and then back again

[BBC10 - 16](#)

[laugh] well I was growing up i:n m scotland, my mother, she's born in Hungary and then nationalised French, a:nd you know it was HARD, to want to be, good at maths back in the nineteen seventies in Edinburgh, where I think you were also, /mm/ and m:,, you know, I was searching for kind of role models and when I was told no no the hungarians are brilliant at maths °you know being hungarian° I kind of thought YEAH YEAH that that that'll help me and I think that **one thing that the UK doesn't do very well, is** really m VAlue their mathematical, ROLE models we just we just don't do it

[BBC10 - 17](#)

Yeah I think it is I mean it's a problem all over the world, a:nd I've just been in japan and THERE they think even though they do really really well there they also think / okay/ well we've got problems people are are are this good but puzzles are a great way to, get people to m: to COUNter that and **one of the great things about puzzle is just the puzzle say like sudoku is** that you can try and solve it, if you don't get the right answer no one is telling you you're WRONG, /mm/ you REalize it, you think okay I did something wrong so you YOURself step backwards and that is part of the process, of what doing maths is really about

[BBC10 - 21](#)

S2 : exactly, em the selfish gene, programs the altruistic individual and that's really what the selfish is about, this this book is of course much later than the selfish gene /mm/, so it's not it's not about that, but it's true that that was an unfortunate title in some WAYS,, maybe it should have been called the immortal gene which has a more poetic, reading to it it would have been equally appropriate, or even the altruistic gene actually

S1 : and **the point is** that our CONsciousness has deVEloped to a point where we can as it were, opPOSE some of the apparent, e: consequences or logic of darwinists

S2 : Exactly I I keep on hammering that that point too, we do, in in a way we should learn our darwinism, not as a means of LIVING, but as but as a mean of aVOIDing that way of living and, darwinism apply to human political affairs and be a kind of THAtcherism

[BBC10 - 24](#)

natural selection will have shaped it /yes/ absolutely so we come on now Deborah to the to the issue of, how we she explain this theory to: to young, e children in particular you **your your theme is** get them YOUNG explain it when they're still quite young, what is the single biggest, MISunderstanding of darwinism

[BBC10 - 37](#)

e sex in general is something that most people don't want you necessarily teaching / oh bring it on come on/ to a kid of six so m so at this point really we are focusing not so much on sexual selection, but you know certainly down the line, when we we're heading down the line **the idea is** to prePARE children over time to understanding these concepts, we're COUNtering all these other intuitions the purpose intuition design intuition, that are actually very present from very early on five six years of age

[BBC10 - 43](#)

one of the things I find fascinated about the book, m was the the sort of SEquence of climate change, and then beHAVioural change by the mealybugs right, and then, the physical adaptation, by their their predators, m and I never really I mean °and I'm not a I'm not an evolutionist° I mean I've never really thought about how, maybe those things are, categories that are stupid to deFINE, because it's they are all they're all happening at once

[BBC10 - 50](#)

S1 : I was taught the ruddy periodic table without really understanding why I was meant to learn it

S2 : Right no explanations, so what we need is explanations

S1 : Yeah for that matter I mean, **the way I, I learned mathematics mySELF, was** pure thought, right at at any time somebody was trying to shove a, a sort of trigonometry formula down my throat I, derived it from first principles and that's something we don't teach

[BBC10 - 51/51](#)

you want to be, encouraging curiosity about the world, **the way you do that isn't** by saying they're all these subjects, and they're all totally room fenced, another **one of my projects, is** a kid's book, aim slightly older between: eight and twelve called FOOTball school, a:nd it's essentially hogwarts for football and every lesson is about FOOTball, so what you're doing there is you're appealing to kids who, don't read [??] cause it's not what they wanted to find out about, but in there in the physics lesson we learn about how you played football on maths so we learn about GRAvity we learn about AIR resistance and ZOOlogy we learn about real life animal mascots you know e the koala the eagle the crystal palace what's interesting about EAgles m: we learn about probability in the maths lesson but the probability of something happening during your game of football a:nd I think that you CAN, give, children, e you know these big ideas that they will like and understand and once they start to realize that Everything cross connects, that's when they get excited about learning

[BBC10 - 55/56](#)

I have well I've written books for twelve year olds, e call the magi magic of reality m, I think, I mean if if you take the e biology itself, evolution doesn't come into biology until the end of the textbook, it should be the beGINning it doesn't make any sense at the end, and I can't help feeling that **reason for this is** it's thought to be controVERsial, it it shouldn't be controversial and **the reason it's controversial is** quite simply religion, I think that's what pushes it to the end of the textbook, biology doesn't make ANY sense until you hit the evolution it li it's just baffling your like periodic table, what's it all about?

[BBC10 - 58](#)

oh it's, well we can say that it sticks for at least e about three months three to four months, enough for you to come in and do, and work and gain and let's now let's elaborate this principle, **and the iDEA here should really be** that there is a kind of stair staircase structure that's taking place a proGREssion, where we, we start out with the principle and then we build it we elaborate it rather than it ALL being piecemeal, different pieces of facts oh look FOssils, but okay we're not connecting that back to: e natural selection and why animals have properties that they do, fossils and contemporary animals look SIMilar we're not gonna explain that

BBC11	Start the week	Inventing the Self Fact and Fiction	https://www.bbc.co.uk/programmes/b08sks0w
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BBC11 - 1/2

S1 : because **the real problem beTWEEN you is** that he didn't want a candid biography at all
S2 : which is an odd thing to feel when you've commissioned somebody to write your autobiography with you [laugh] and to engage in such a an activity for MONTHS and pretend that you're collaborating e well, you know it was no skin off my nose I thought it was to some extent, e,, wonderful,,, as a series of insights into human nature and the times we're LIVING in, e I certainly did my best to help him straighten his sentences and open UP, about his LIFE, but **the almost Shakespearian-sized irony, about Assange which I discovered over those months, was** that the man who was the world prince, if you like of, exposing other people's secrets /yeah/ couldn't BEAR his own, past and his own, secret life and that became for, me an overwhelming sort of, e you know,,, SIGNAL almost /mm/ about the times we're living in that you could have such a figure, who wants to exPOSE, all the world not only its governments but individuals releasing tranches of e-m personal e-mails and so on but when, you begin to look into the e the business of their own PAST and their own life they crumble

BBC11 - 3

well I was taken aback, when I discovered as we all discovered in a FLASH that, the metropolitan police had for YEARS, e: been engaged in taking the names of dead children, from gravestones, e building what they called LEGend, around these e names, that is to say giving them a BACKground and giving them e PARENTing e SCHOOL that they went to a life that they might have lived / political views/ political views and using that false legend, these officers then insinuated themselves into political organizations like CND for example and went on, e political MARches and so on trying to gather information, against the marchers, in other words it was a, an undercover operation, and when I found out about this I thought it spoke to our time so directly, and I thought **the only WAY, that I could possibly find out, how that worked, was** to try to do it to take a name and engage in the same, if you like, questionable ethics

BBC11 - 4

and you're very tough on yourself you [laugh] a lot of the lies or untruths that you, dissect /yes yes/ are your own lies and there's I mean you come through a family which well have lots of resonances for LOTS of people listening e you have e: loving but argumentative and ultimately FIGHTing parents / yes/ you have competitive siblings and you're sent off to boarding school at a young age /yez/ and all the way through you confront a series of adults who tell you how the world is a:nd I suppose **the story of the book is** your e: evisceRAtion of of the lies they're telling you

BBC11 - 5

e and, I'm interested in in the idea of the necessary lie, / yes/ so **one of the crucial lies is** we are a HAppy family /absolutely/ we are a NOrmal DEcent HAppy family, a:nd e you know your family was not a happy family in in in, LOTS of crucial ways, and YET there are lots of families who have to maintain that fiction we are happy, / yes/ because they can't go on otherwise

[BBC11 - 6](#)

and **one of the things that you discover writing any kind of memoir but particularly this kind of memoir i guess, is** that the things that you are pretty sure about in your memory, your siblings may have a completely different memory of or have forgotten or have added something crucial so, /yes/ even the intimate memories about stories we tell ourselves about our OWN lives our own, histories /yes/ can be completely wrong, or seem to be wrong from the outside

[BBC11 - 7](#)

and my brother and I were not speaking for ten years we'd fallen out, e and I thought **the first lie is**, who has burnt the lino, who has burnt the lino

[BBC11 - 8](#)

and he's going to beat one of us and e [laughs] and so I choose in my memory, **the person who's ALWAYS beaten is** my adoptive brother because of course it had to be HIM [laughs] so I sent my, my eldest brother whom I'd not spoken to for TEN years, the manuscript and of course i think he's going to SUE me he MUST want to sue me, cause I've got it all wrong and all i get is a facebook message saying,, I think you've got it wrong about the lino, the person [laugh] **the person who burnt it, was ME**

[BBC11 - 9](#)

and by the middle of the nineteenth century, their leader °john nelson darby°, broke away from them, because he didn't think they were hard line enough and **his argument was**, the RApture's coming really soo:n, we're gonna be LIfted off the planet e this little group, and unless we keep ourselves completely separate from the world and all the all of it, WICKedness e we won't be, able to go before it

[BBC11 - 10](#)

he took over in fifty nine a:nd e then began to institute all these new, rules, REAlly hundreds of them, e so they were being introduced every: every few weeks new rules about, you know no contact with the outside world no EAting with the with non-brethren e so if you had a non-brethren member of your family in your house, they had to leave so, teenagers and elderly parents and so on, e and if, you e **the PUnishment for non compliance was** that, ultimately you'd be thrown out TOO and if that HAppened then, you wouldn't know anybody on the outside world

[BBC11 - 11](#)

yeah and to- he became an addicted roulette player for the rest of his life, and ended up going to prison when I was sixteen, e: i mean **the thing about being inside closed groups like that and cults is** that, every decision is made for you, every, part of your life is micromanaged and, I think when I when I talk to ex brethren, people who've left, again and again you know it's the trauma, of being, reLEASED into a world where there's CHOICE and e having to figure out a whole different belief system, e: and find a way into the world without that sort of, micromanagement

[BBC11 - 13](#)

And **one thing he DOES get from the bible in that imMERsion in the bible, is** an Absolute LOVE of words and language and I think when he's dying he's got, elliot's four quartets stuck up /yeah/ on the walls around him it's a wonderful thing, I wondered miranda, e whether your very very strong charismatic father you felt was a kind of identity you you recognized, elements of rebeccas father in your own

[BBC11 - 14](#)

I think **one, one of the things I I felt as i was, PAINTing him was** that, there was this extraordinary mixture of the sublime and the abject about him, which i still is such a GIFT because, you know you realize actually all of us are, a mass of contradictions but that exTREME mixture, of a man who who loved poetry, and could behave SO badly [laugh] /yeah/ it was a great thing

[BBC11 - 15](#)

and and **the underlying kind of theme or motto of your play is** je me souviens, /yeah/ which is I remember, r /yeah/ n which is on the number plate of every french canadian CAR

[BBC11 - 16](#)

well a THIRD remarkable father, a quebec TAXi driver [laugh] / yep/ e °robert Lepage° e in your play eight eight seven which refers to the name of the: the the flat or the block you were brought the appartement you were brought up in, you use kind of, as it were, illuminate dolls houses and models running around, and **the model for your father is** his taxi, and he's a man who you realize from ti goes into his taxi, to have a Cigarette listen to music which he loves and occasionally to CRY, just just just, tell us a little bit about how important your father is in your life

BBC12	You and yours	Cinema Attendance	https://www.bbc.co.uk/programmes/b03nt84c
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[BBC12 - 1](#)

Now **the other thing to point out about your figures is** you count box office TAKings I think rather than the number of people who actually GO, to the cinema, and ticket prices have gone UP every year haven't they

[BBC12 - 2](#)

well this isn't really my idea I've heard this advanced in hollywood by people like stephen SPIELberg, er: he says that he thinks **the model, for for kind of future films is** that you will pay, a Little bit, for the small films and quite a lot for the big films you know you will actually PAY, a graduated, amount for what you go and see which I think makes some sense because, when people go to the cinema, and pay twenty QUID, they want to get Gravity they want to get a film that that amount that twenty hundred you know two hundred million has been spent on, they don't want to see, some, sort of French art house film

BBC13	The Listening Project	Challenges of Parenthood	https://www.bbc.co.uk/sounds/play/p0775mpg
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[BBC13 - 1](#)

S1 : I'm hoping actually when you go back to WORK that things will be a little bit easier because I think you'll feel more like YOU, **the thing is,** you've not lost what makes you YOU you've just not been able to USE it for the last while

S2: For a while I thought I had lost, I really did think I had lost what makes me me

S1 : Really ?

S2 : Oh my god yeah

BBC14	Midweek	Natasha Wood	www.bbc.co.uk/radio4/factual/midweek_20080305.shtml
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BBC14 - 1

absolutely and you know it was a FUN childhood I mean you know my earliest memory, my dad's hysterical very quirky, VERY funny, lots of energy, and there wasn't much talk of it very little talk of it in the family and, **my earliest memory of four is** my dad saying oh well we bought you in a store, toy department top shelf, and me saying how much for dad, oh very cheap on account you were broken, [laugh] well why didn't you TRY and fix me we tried your mother went out and bought sticky tape and glue, and it was like that it was on-going you know and of course for seven years I thought I'd been bought from Woolworth's [laugh] and that's the energy of it and so there was very little talk of it

BBC14 - 2

no I mean I just said he said you know, I think I went on at first sort of oh I want to even out my shape you know it's like twisting, in my SPINE but of course **the real truth is** that I just wanted these great big melons in front of me [laugh] you know, in fact it was when I went to sleep I said, you know do you remember I want to wake up to the swiss alps, [laugh] you know and they all just burst out laughing and off I went into er into sleep

BBC15	The Listening Project	Suddenly Everything Changes	https://www.bbc.co.uk/programmes/p073zpzr
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BBC15 - 1/2/3

S1 : And I remember as well that I had to put, your leg on my shoulder, and then **the only way that I could block the wound** /oh yes/ cause the bullet had gone right through your leg basically, so there was a hole the whole way through your leg and I jammed my, thumbs, / yeah/ into the wound like I actually put my thumbs inside your leg, and then I remember **the next thing that I thought was,** I have to keep, I have to keep him CONscious, I know I have to keep him conscious because if he doesn't stay conscious, / yeah / he'll more easily, m die
S2 : yeah yeah / you know/ and **the thing is,** you know if you hadn't kept me conscious maybe I wouldn't be here right now,, I just remember thinking,, that it's, it it wasn't right that I would die, in, the desert in Kenya, far away from everything just, beside my new girlfriend you know

BBC16	The Media Show	Why Channel 4 is on the Move	https://www.bbc.co.uk/programmes/m00010z0
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BBC16 - 1

S1 : Alex what newspapers if any do you read each morning

S2 : Well I get up in the morning **the first thing I do is** read the CLIPS about channel FOUR cause if something's gonna go really wrong nowadays

S1 : so you get a clip service sent to you

S2 : yeah it comes at like 3 AM in the morning so not when I get up but when I do I read it and then I read The Times and The Guardian and the FT if there's something that covers us and if I need to see the gossip have a look at the Daily Mail

BBC16 - 2

actually quite similar erm I I am the chief marketing of supplies communication /of course/ internal external, communication so what's being said about unilevers is quite important around the world, and of course the world goes twenty-four seven so: well while I'm sleeping, things are happening around the world, e so **the first thing I do is exactly that is is** look at the: e the CLIPS e and e what's what's being SAID, e and then I immediately slip into TWitter, e I'm a bit of a twitter, erm follower e and then, erm I do look of course the the newspapers we have all the newspapers e, in the office

BBC16 - 3

absolutely so I I believe curiosity is one of the most important things e certainly in market but in I think in business generally you need to be CURious about what's going on in the world what's going on, e in people's live so **one of the things, that I do is when I get to someone's HOUSE, is** after a short period of time e is e, I ask to go to the BATHroom,, so I pop off to the bathroom lock the door e open the cupboards and have a look what people have bought and what pPROducts they use etc, which clearly I can't do any longer now that I confess it here but e it's been passed around this story so °I suppose it's public enough°, but **what I you see is of course is is** what people have in the front of their cupboards and also what they have hidden in the back of the cupboards

BBC16 - 4/5

S1 : what was your pitch for the job ?

S2 : WELL, I got appointed in June and came and joined at the end of october and **my pitch was**, more of what we've come to love from channel four, so more of that combination of the remit so programs that speak to diverse audiences to DIfference to innoVAtion to the kind of pure distilled form of creativity, e whilst at the same time making sure that we're popular enough to beat commercial and then how do you do that in the landscape where we're really really digitally challenged and, **the thing about channel 4 is**, it's really easy to love it, a lot of people in the creative industries love that, cause it's Unique right no other, broadcaster in the world, is SO focused on the young audience, and is so focused on this peculiar MIS of delivering this PUrposeful remit, whilst at the time making it some money and being independent, and that combination is a joy for creative people

BBC16 - 6/7/8/9

we've been REAlly clear that we'll have creative decision makers there, and commissioners there because **the big thing for us,,** you know this is a three point plan right, **first point is** that we're spending an extra quarter of a billion, outside of london between now and twenty twenty-three that's voluntary, erm to DO that we need to change the way we,, make decisions we need to change the way we commission we need to change the PLAcEs we commission from and that money is to be spread all across the uk, **SEcond thing is** moving the people, national hq in leeds, and creative pubs in bristol and glasgow and **the THIRD thing is** collocating the news with us and the NEWS being presented multiple nights way from outside of London that's totally new on national news so m those are the big changes

BBC16 - 10/11/12/13

and I think, what we're certainly seeing is, there is a need for brands to on ONE side, yes look at advertising but on another side, e look at how they engage people in different ways, and we look at e what we call CONtEnt in two different ways so one of which i:s, is sort of e utility needs based content, so whether that be REcipe:s or cleaning advice, e:m right now you were mentioning about voice,, e on voice for instance with amazon LExa, e: yeah one of the big things right now is you can ask em alexa to e give you a RECIPE e and off she brought you by BRANDS and it will talk you through the recipe but if you think about it that's EAsier than looking at a at a a recipe book or or cleaning tip you just spilled something, so look one side is looking at the sort of building e utility content, but the Other side is entertainment content and that's, when you talked about product placement, you know that's been there it will still be there em and I don't think that's gonna be the answer, I think what the ANswer is is to find truly entertaining ways, to engage people around brands and what brands stand for

BBC16 - 14

but don't a lot of people frankly find brands championing social causes erm a bit obNOxious when out and the motivation is to utterly to sell us stuff it's a bit like the famous campaign with dove and and real women, this is about SOAP right, colin kaepernick the australain the american football player, who's been taken on by night right colin kaepernick is an extraordinary I'm gonna say iconic figure in the fight for racial e justice and equality, but this is about selling trainers isn't this something a but abSURD about wrapping up a commercial message in this great moral project

BBC16 - 15

S1 : Dove is the biggest educator of self-esteem e in the WORLD e we have a partnership with girl guides we teach young girls to DEcode the beauty industry I've been on so many sessions it's fantastic they sort of pull of a magazine cover and say, get in that position and then all girls try and get in the position and they can't they say yeah absolutely cause they cut her hand off, and moved it over there to frame the picture differently

S2 : Okay so I guess the point is that some of these compaignies are genuinely committed to the social causes

BBC16 - 16/17/18/19

Well first of all, we published really widely some Friedman's work, so I think in in in making change in complex areas the first is to be really honest, and really open about, what the statistics ARE, then what the issues ARE and then how you can tackle it so, Tom's work is really interesting cause what it SHOWS is not a surprise, that there is a lack of people whose parents, were of a professional or intermediate professional class within the media, what I think is MORE interesting is why that is So three sets of reasons, ONE is to get into your industry, m: you have long periods, when you're starting off where you're free-lance where you're in-between things, so you have to have rich enough parents, to be able to fall back on someone else, the SECond thing is, tha:t you probably have to come to London, again, you have to have enough money to be able to do that or be from a family where that is considered aspiRational or possible, BOTH of those things we hope to really tackle by moving more people outside of London, the THIRD thing I think is much more worrying and not as obvious and it's the most fascinating thing to come out of the study, that there exist in our industry, °probably in other industries°, e: a set of social codes which are quite knowing and quite ways of behaving, which if you're not part of them or you didn't grow up with them, for the people that did they seem like they were in a club already, even if they don't know each other, and for the people that haven't got those social ways of DRESSing or of SPEAKing or of knowing about things, they seem like such a [??] hurt to do them that you think, I can't leave them do that

BBC17	Midweek	Rosie Wilby	https://www.bbc.co.uk/programmes/b019fxj7
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BBC17 - 1

S1: you had a big album launch coming /oh/ and your house caught fire

S2 : Yes m but I do **the reason I've sort of reclaimed this period is** that in SOME ways I experienced a similar thing to Nick in that, I experienced a lot of LOSS actually during this this time which °I was in my twenties it was a very formative time° and, err there was a terrible house fire just days before my, album launch gig and, myself and my partner Donna we LOST, al almost all of our stuff, we salvaged a few, precious THINGS e: but it was it was a terrible YEAR just coming up to the millenium when, °you know° the world was supposed to end and in some ways mine mine DID because my mum also died from cancer that year, and music was very associated with, quite a painful time in my life and actually, for me music sort of started to feel flat

S1 : but you had a house fire when you were about to have an album launched /yeah/ and does this mean all your kind of blingy costumes cause to be a popstar I'm afraid it's partly visual, isn't it?

BBC18	Women's Hour	The Great Grand-Daughter of Emmeline Pankhurst on the Campaign to Get More Women into Parliament	https://www.bbc.co.uk/programmes/m000178s
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BBC18 - 2

S1: Helen what's the thinking behind the: ask her to stand event?

S2 : Good morning Jenny, e:m **the thinking is that** we are grasping the symbolically important YEAR the symbolically important DAY, you know there's been a whole set of initiatives but, this day is important it's the date when women could finally, STAND in parliament and we're bringing together a lot of women who are thinking of standing, e: to understand to SEE to LEARN from the process but also asking the MPs who are the ones who actually inviting these women from their own constituencies to really put effort on the day e in welcoming these women in understanding that our democracy is only, as rich and as powerful, as when you have that interplay between, the politicians and the citizens so it's this one moment when they can LEARN more and hopefully be inspired to stand

BBC18 - 5

so I fundamentally feel we HAVE to kee:p, pulling up that elastic band and we can get there there's no reason why we can't, other countries have, **one of the countries that I'm most associated with is** Ethiopia °I was born and brought up there, they're now got to fifty fifty Cabinet you know it's a QUESTion of goodwill it's a question of prioritisation we can get there hopefully in the next ten years

BBC18 - 6

Now soon to come, in today's program the women's ATlas a reference book which shows the status of women around the world, and **one of the most STAGgering statistics, is** that five hundred and twenty million women will not be able to read the book because they are, illiterate

BBC19	The Listening Project	In the Friendship Zone	https://www.bbc.co.uk/sounds/play/m000cyvr
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[BBC19 - 1](#)

S1 : yeah you become very patriotic e: more patriotic I suppose

S2 : you DO

S1 : and when you eventually come home for little holidays or whatever then it's just like erm returning to heaven you know but e:, **the weird thing is** when I did eventually move back home, the amount of people, who said to me, what on earth are you doing moving back here a:nd and, I was like FLAbbergasted /I know/ I said it's just marvellous /I know/ YOU know what they'd been saying you know really e dumbfounded /yeah/ and

S2 : but they probably never gone away

BBC20	The Listening Project	Beginnings and Belonging	https://www.bbc.co.uk/programmes/p07ycyzq
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[BBC20 - 1](#)

And e:, after the friends had left, she said to me: well that man in the photo, he is your DAD isn't he, and I was like,, no no that's not my dad, you know, anyway, e and then she said e:m well I'm SURE, it is cause you said his name is John I said oh yeah his name is John but, there's no connection, and e: she then said e well **ALL I know** and then she stopped and she said I really shouldn't be telling you this,, [laugh] I said well you can't just stop /no/ half way and not say anything else, er:m and she said well **all I know, is** it's the person who who built around your dad's house

BBC21	The Listening Project	Family, Friendship and Fitting in	https://www.bbc.co.uk/programmes/p07x0m8t
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[BBC21 - 1](#)

S1 : so I don't know how people think when they are, OLD they'll go back and live in Kenya

S2 : and and being there and and and everything will just /be okay/ personally I've I've concluded these are you know I love Kenya, but **the reality** you know, it doesn't work when you go you stay there for two three weeks and it's like okay, I want to go back home

S1 : I want to go back to my normality yeah

BBC22	The Listening Project	Family, Friendship and Fitting in	https://www.bbc.co.uk/programmes/p07ycqpz
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[BBC22 - 1](#)

that was yeah you were just wonderful so supportive, / thanks / **the thing I hadn't realized about andreas is** that HE, truly understood what I was feeling / yeah / so when I said / oh right / I just feel hopeless I feel like there is no hope / yeah / and hour by hour and just / oh / oh still it's still quite traumatic isn't it, / yeah / hour by hour, we just get through that hour, / yeah / and then all of a sudden

BBC23	The Listening Project	All about Relationships	https://www.bbc.co.uk/programmes/p07x0m8t
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BBC23 - 1

S1 : cause I would I met my wife, at university / yeah / cause we were drunk in the union that was our first date, then I guess we were going out and then you know we were together, / yeah / there was no, we just hang out, and then suddenly I'm in this world of, you're supposed to MEET someone and have a DATE and go for DINNER or well,, I think **the reality is** I'm just used to being in relationship cause I mean I was with [name] for twenty-five years, / that's so / which is a pretty good go

S2 : it well COME on it's more than a pretty good go / yeah /

BBC24	The Listening Project	All about Relationships	https://www.bbc.co.uk/programmes/p07x0m8t
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BBC24 - 1

S1 : he would not let you read the paper / yeah / on the sunday / why/ definitely not and when I was sixteen I used to ask him could I, listen to the radio luxembourg eleven until twelve / yeah/ and that was the only time I was allowed to stay up I was working then I was sixteen, did you ever listen to that ?

S2 : yes I did yeah I did everybody listened / yeah/ cause there's nothing else to listen to /no/ was it cause that was the main / i enjoyed that/ [??] there was records and things like that yeah and that was it / yeah/ see and **the other thing** remember we used to go on a car we bought a caravan then and we used to go on

S1 : oh yeah [??] caravan please

S2 : on holidays yeah yeah

S1 : [??] it was lovely [??] beautiful we had liberty and took our mum and dad, get fabulous holidays I used to love that

BBC24 - 2

S1 : it was great these are lovely memories you're very lucky, we are cause we have wonderful

S2 : yeah we are we are lucky to have each other yeah yeah

S1 : and we've had a good married life / yeah yeah / yeah

S2 : **the only thing about it is** it, time is passing us by

S1 : yeah I wish we could have another fifty three years /yeah/ but unfortunately we won't

S2 : but we can't, / no/ but we can try our BEST

S1 : oh we will try our best yes I just hope I will always have the SA:ME values in life ,like we've had

S2 : well, the things were in the past there wa there wasn't the commercial step / no / you know you put you you people never you know / no no/ like when we were kids the doctor, was the only one that had a car [laugh] / yeah / you know well others didn't bother you know they couldn't afford it yeah, / no/ and you used to VAlue things and look after things

BBC25	The Listening Project	Approaching Adulthood	https://www.bbc.co.uk/programmes/p07xnmzx
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BBC25 - 1

S1 : so there was no pool of good money and, what you could do with it but e:rm oh I wouldn't change it

S2 : **the interesting thing that I always, I'm interested in is,** I know you you were brought up in the backstreets of Birmingham, / yeah/ and so:, you didn't go on to further education or any of that, but you were keen fo:r / oh desperately/ me and my sisters to: get an eduCATION get a DEGREE get a good JOB and be independent and stand on our own two feet, and of course what that, has meant, is we've all, basically gone to work away from, where where you live

S1 : oh I've shot myself in the foot

BBC26	The Listening Project	The Joy of Belonging	https://www.bbc.co.uk/programmes/p07q3r6r
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BBC26 - 1

but it it it breaks my heart that, you know ninety thousand kids in the care system, and one moving every fifteen minutes, that kids and CARre, with all the stuff that goes on and all their chances, are being moved in plastic bin bags, I think **the thing for me the the reality is,** it it's the fact that somebody else's putting your stuff into something they put, RUBbish into rather than you CHOOsing to do it is the thing, I just don't understand why why this happens

BBC26 - 2

You see, I don't think anybody said so, to intentionally move kids in a in a bin bag, but I think, **part of the the thing is** is just being unprePARED /mm/ it's if I was a social worker and I was gonna arrive at a breakdown of a home, and the kids standing there and you've nothing else well what else do you do, but for me it's the burden that I think like, these kids have huge value and worth so, they should be treated, with dignity and I know for me my beHAviour, is always different around things that I VAlue, and so is there a lack of, the question I have is there a lack of, a VAlue in these incredible children our care system

BBC26 - 3

hearing for the first [??] of young people travelled from fifteen different homes and in the spite of a week or two with black bin bags it's like how can this actually BE okay, they feel deVAlued by the , **the the biggest shock for me is** actually I didn't or I underestimated the numbers, so how do we change the situation what we bring in to those young people lives that allows them to feel actually you know I'm loved, I'm valued, I have worth I have the right to travel with dignity in terms of the care system

BBC27	The Listening Project	The Joy of Belonging	https://www.bbc.co.uk/programmes/p07q3r6r
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BBC27 - 1

S1 : and I think it comes from, e:rm being part of cultures that are disenfranchised

S2 : so, **bottom line is** we're both from decent, STOCK [laugh]

S1 : oh yeah I I I I think I think

S2 : it keeps us together [laugh]

S1: yeah I think I think we e:rm we're we we we the the there is something about e:rm I didn't know really know where I came from and I don't think you really knew where you came from, so it's not like being born into a nice comfortable loving, BACKdrop you know

BBC28	The Listening Project	All about Reliance	https://www.bbc.co.uk/programmes/p07vpyrx
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BBC28 - 1

S1 : I think **the first thing that annoys me, is** when I get, I say to people I don't know we we're in c conversation it comes up that I'm aDOPTed, and then they always say, OH have you been in contact with your birth parents your birth mum, I find a little bit problematic and I think S2 : well I think it's very labelling isn't it / yeah / I mean it it's putting somebody wanting to put a label on, you you know that em, that's your identity and it's NOT your identity

BBC29	The Listening Project	If You've Got It, Flaunt IT	https://www.bbc.co.uk/programmes/p07j4lg5
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BBC29 - 1/2

I'm so used to it when I was younger that used to really, I'd go back home and thought about it, I know they're saying and a bit of me goes **my job is** not to aROUSE, a male audience **my job is** to make women, feel better about themselves / okay / that is my job, that is what I'm doing and I'm not standing up there and hoping, oh I hope this is sexy a:nd someone asks me on a date afterwards, I'm just thinking I hope there's someone in that audience that goe:s, oh she's got something like I saw you like did okay you know

BBC29 - 3

S1 : it was so hard because there was not really money when when I started it and **the thing that really annoys me the most, is** some people go oh you remind me of [NAME] it's like legit cause I'm fat I don't tell any jokes that are similar to her

S2 : you're not like [NAME]

S1 : I don't have short hair

S2 : you don't even have that kind of sarcastic, DRA:Wling kind of I hate everything

S1 : I was never psychiatric nurse

S2 : no

S1 : I'm not english I never had punk hair, literally

S2 : you're nothing like her

S1 : it's cause we're fat we're just fat

BBC30	The Listening Project	The Dark Side of Comedy	https://www.bbc.co.uk/programmes/p082hfc3
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BBC30 - 1

S1 : I did it the same reason as YOU / yeah / because I was,, kind of there's a sort of desperation isn't there? cause I wanted,, just to: get some way of getting / mm / some writing to people / yeah / and then you can just stand up can't you in the corner /mm/ of a pub, / YES/ and and and do it and I think,, **the thing with me was** I seem to get the psychological elements of kind o:f wanting, to perFORM to / yeah / I don't know you there's a kind of wanting to be noticed element isn't there always about,, well for me there was, but then, I almost I got like sick o:f, my comedy perSONA / oh right/ cause I had it was just stand it was stand up and it was like I got,, like,

S2 : cause you used to do it as YOU / yeah / whereas NOW you're creating characters / yeah / and you feel more comfortable with that now ?

S1 : because there's more to hide behind because, although I understand that when you are on stage you're like,, a character in a sense aren't you? / yes/ even if you're doing even if you're doing a routine you're still a sort of a character / yes yeah / I think / yeah / but it wasn't enough, almost like not enough, erm proTEction so that you s / mm / you start to take it personally or something

BBC31	The Listening Project	It's Your World Now	https://www.bbc.co.uk/programmes/p086k1lm
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BBC31 - 1/2

S1 : our population is forecast to be seventy-seven million in two thousand and thirty or two thousand and fifty

S2 : so then it's it is essential that we move towards a plant-based DIET then

S1 : it's not gonna work sixty-five percent of our farmland is in grass, which we

S2 : we can't feed that many people, meat and dairy / we / and especially / the/ not the happy HAPPY free range meat that you're talking about / the thing / it's not gonna work

S1 : **the thing is** / there's not enough space/ one do you know **one of the biggest things that we haven't discussed and for some reasons it is not not our top of our agenda today / yeah/ but at the top of the world's agenda, is** food waste, because that is the single / oh massively/ biggest issue / it's huge/ the institute mechanical engineer did a report back in two thousand and thirteen I think it was, and said that up to, thirty percent of all the food produced in the world NEVER reaches anyone's plate, / mm mm/ why on earth are we not starting there?

BBC31 - 3

S1 : **the problem is,** °and I have to be really careful what I'd say in farming circles° but food is a basic need you know it's about survival

S2 : it's true yeah

S1 : and and when you put a profit motive in and you think why shouldn't I get more money for over THERE,, I've often thought, perhaps food should be state controlled maybe maybe it should be actually state in farms you know it's there to feed the NAtion / yeah/ and

S2 : I really hope that times ARE shifting and changing / mm/ in the aspects, cause I think you're right befo:re, everyone's always been driven by what's the cheapest thing to do you know what's the you know the most profitable / yeah yeah / for ME certainly and a LOT of people I know there sort of my age group and you know older and younger as well

2. Communications scientifiques

WYA	Pheromones: what animals (including humans) say with smell	http://podcasts.ox.ac.uk/pheromones-what-animals-including-humans-say-smell
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WYA - 3/5

So **my first question, em is** how many people here have read, Perfume,, [we've seen the film] er now I've not been brave enough to see the film, because I'm hugely passionate about the book but would you recommend the film,, yeah ok so I should take the courage in my hands, and see what they have done to Grenouille the main character,, [voice] Oh, right, well those of you who know the story, it starts off pleasant in parts but it actually ends up as you, the subtitle is e the history of a murderer, e but anyway **what, I loved about the book and I look forward to seeing in the FILM,** is the way that, Patrick Suskin creates an aMAzing, imaginary world whe:re smells are everything a:nd he creates an amazing character who has, an exTRAordinary sense of smell, so as he's walking along streets he can follow somebody, just by their smell, but he has no smell himSELF, so **the illusion is** that he slips through the CROWD, without anybody else noticing him,, now that is e something very imaginary, because every other er kind of animal, leaves, an odour trail

WYA - 7

so **what I want to star with,** e is what a pheromone IS,, and it's a relatively new word, e it was coined by two germans in nineteen fifty-nine, e in a paper that's, been something of a landmark, e in nature a:nd it's been quoted hundreds of times since then, a:nd **one of the things I'm hoping to do next year** is write a piece celebrating, the fiftieth anniversary

WYA - 9/10

so why don't moth and elephants get conFUsed,,,, [laugh] now **the reason that male elephants are not attracted to moth FEmales,, and that would be disastrous,,** [laugh] **is** that luckily,, female MOTHS release TIny quantities, of the pheromone, and as I SAID female elephants, release GAllons, of pheromone so, he just doesn't notice the moths, but what about the male MOTH, the female elephant probably wouldn't notice,, [laugh] but there is a reason why they're not attracted, and **the REAson is,,** each of the moth species, has a number of different smells making up, its pheromones, which is also the reason why THEY are not confused, and why a hundred and sixty species of moths, can share the same PHERomones, because actually that's only one or five or SIX, different compounds in a very precise ratio, and the males will only fly up, to a female if she's got the blend, just right

WYA - 11

so when two, fruit flies get close toGEther, they can tell very easily as they TOUCH each other, whether they are the right species, and of course there are things involved as WELL, **because one of the things that drosophilas DO is** SING to each other so when you're looking at fruit flies in your compost heap, they're actually doing some very complex, behaviours

WYA - 12/13/14

now these proteins, e can actually BE, pheromones themselves or this is the splendid e: or magnificent tree frog, and **one of the things that you may remember from bioCHEmistry, if you did that, is** that bio chemists love giving the names to PROteins, e and this one is called spendipheRIN,, and it's a very e: small peptide, and **one of the interesting things, is** that a Tiny quantity forty nanograms, put into an aquarium is enough to attract a FEmale, from about a meter away,, and it seems to slide across the surface tension across the water surface, faster than diffusion, should let it, and **one of the things that I'm looking at is** it, may actually almost be swimming with a scissors motion across the surface, and drug companies are interested in, possibly using this as a way of getting things into their LUNGS, and getting it to spread, across the surface of the lung so it's one of the ways, that pharmacologists are using lots of natural products, in this case a pheromone e: to find drug leads

WYA - 15/16

now, **one of the things that IS different, between mammals and INsects, is** that terrestrial mammals often, take their SMALL molecule, and hide it, in a large protein, and **what they get from that is** a slow release, so if you're a mouse marking your TERRitory, you can, put your urine marks DOWN, and you get the smell e releasing over a much longer period,, some of the individuality of your signal, may also come, not only from the NHC that you may have heard of, but also from these urinary proteins,, and again the elephant, the sex pheromone, uses a protein with it, to get the message across and to give it, e a longer lasting signal,, now **the other thing that's changed,** is the communication distance doesn't have to be FAR, and these are some beautiful e danidae butterflies, and in this case the male is HERE and he's attracted the female with a VISual signal, she's been attracted by, his colour and his MOVement

WYA - 21/22

so **the thing about smell, e is** it's VERY good for communication, it works in the DARK, it works, around CORNERS, e smells can last a very long TIME, so you can, mark your territory for a long PERiod, and these e nocturnal creatures, e: these bushbabies e put urine on their hands and then as they're walking along the branches they leave a trail, but **one of the things about smells, is** they're not instantaneous, molecules have to go from the source of the smell, whether that's a cup of COffee or a dung heap, they have to go FROM there into your nose, and so if you're smelling the coffee you are actually,, deTECTing molecules that have travelled from the coffee to you

WYA - 24/25

as it turns OUT, we are very GOOD, at detecting smells and distinguishing them **the thing we're NOT so good at is** the: very very, low level detection that of course dogs, are famously good at, but in terms of the range of smells that we can detect, we're actually just as good as dogs, and **one of the things we CAN do, in the same way as insects and dogs can DO, :is** we can detect, carrier molecules, and you know that molecules often come in a left hand and a RIGHT hand,, and you can't superimPOSE them on top of each other, it's a bit like trying to put your hand in the wrong glove

WYA - 32

so, **what happens in the brain,, is** you've got the olfactory sensory neurones,, in the nose and they're sending the message and **the CLEver bit, is** that all the blue, receptors or neurones are sending a message to, a particular part of the brain the glomerulus, where all the blue ones end up, and all the RED ones end up here, and then this is where,, all the integration to say this is now smell three, but it's actually much better than that

[WYA - 34](#)

each of these receptor proteins, is sensitive to Different shapes, and other characteristics of the odourant molecules so °different charge properties, or different positions of the double bond and so forth°, and **the aMAzing thing, is** that the system is pre-adapted, whatEVER smell is created in nature, or by a chemist, the nose is ready, to sniff it, if it's volatile, it's likely, that you'll be able to smell it at a certain concentration if the concentration, is high enough,, so any chemical is likely to stimulate some receptors

[WYA - 35](#)

now, **one of the things that's WEIRD, is** if you look at the: proteins that do the transduction that take, a Signal and convert it into a signal for the BRAIN,, if you look at the serotonin receptors very much in the news for dePREssion, erm humans and drosophila basically have very much the same molecule, we've not actually diverged that much in that,, in terms of the: light receptors in our eyes, that convert light energy into a signal to the BRAIN, aGAIN there's not much difference between humans and droSOphila but if you look at our Odour receptors in drosophila they're all over HERE,, but fish and vertebrates are here, and then these are a whole lot of others, so something very special, has happened with the odour receptors, that's completely different, from what's happened with the light receptors,, and it's that eyes, haven't actually changed that much °although if you read richard dawkins you'll actually discover that they've evolved on many occasions°, but they've always used the same system for converting light into, a signal to the brain

[WYA - 42/43](#)

so, **the next question then is** what kinds of compounds, do you find, as pheromones?, well there's an enormous variety, as you go across the animal kingdom, although some of the same compounds keep on coming UP, or there is nonetheless a huge variety, depending on whether you are in AIR, or in water,, and then as I mentioned some compounds are used by the same by different animals and **part of it is** that organisms use the same compounds because they use what's aVAILABLE, and since we all share a shared biochemistry, or basically our biochemical machinery is used to producing the same things

[WYA - 44](#)

and, as you go across the animal kingdom, or you find in these goldfish we've got, the oRiginal function, would appear to be, hormones and they are these HERE,, in the lamprey, or which is causing such problems in the Great Lakes, in north aMERica, it turns out that THEIR sex pheromone, comes from compounds that are related to BILE, and **one of the things that's being looked at at the MOment, is** Using, synthetic sex PHERomone, to trap the lampreys, cause they cause enormous problems for the fisheries, there

[WYA - 45](#)

so erm [laugh] do mammals use pheromones? and **the answer is** disappointingly NO, erm the naked mole rats which are the closest things that mammals get to:, social insects, they ought perhaps to use pheromones smells if they were like ant, but in fact they don't seem to,, and nor do they use pheromones for their,, or queen or worker control, sadly

[WYA - 46](#)

and that's all done, by animals without a blue print, just using smell and the smell they've detected just a few millimetres away from each other,, it's also used for deFENce, and **one of the most speCTAcular of these, is** an arms race between the japanese hornet, which is HUGE and the Japanese honeybee which is a different species from the European or honeybee

WYA - 52

er social insects do it too and these are weaver ants fighting over territories, er which they've previously marked,,, and er usually lampposts don't square BACK [laugh] but this time,,, so it probably speaks for every lamppost,, so **one thing I haven't covered, is** how animals find their way when they're looking for smells, and it TURNS out, it's incredibly difficult

WYA - 53'/54

er „if I was to blow a mint odour and ° I was actually tempted to do that but I thought I'd keep it simple° er what we'd find is that, if I put up a fan here, it would take a few minutes, for the smell to reach you over THERE, and it would take even LONGer, for people on the SIDE, to detect the smell, and of course **the REASON, is** that smell is carried in currents, that a:re really complicated they're **one way of imagining it, is** it's a bit like looking at the smoke coming from a chimney, and you can see these sort of WISPS, er blowing down wind, and this is a visualisation, o:f er odour plumes in WAtEr, and you can see that they are very complex they're swirling, and there are lots of different concentrations in them, and it's a VErY hard thing to TRACK

WYA - 55

er but **one of the, reMArkable things, is** that animals as they track odours, seem to do very much the same sort of THING, so whether we're talking about albatross er detecting the odour of FOOR, or fish doing the same THING, er fish homing to their home stream or female moths finding a PLANT to lay their eggs on or male moths finding a fFEmale, they all have this exact resSPONSE

WYA - 59

now, **one of the questions that's been, around for a LONG time, is** could humans do that? A:nd some researchers in california at berkley had the brilliant IDEA, of asking just that question, and so they got erm people, er to SNIFF a TRAIL, and they took the precaution of getting them to wear gloves or mittens so they couldn't detect the trail anyway by touch

WYA - 62

so, on the evidence of what we ARE, we ought to sniff,, this was the one I showed you, erm sex attractant pheromones to make us irresistible, SADly er all the evidence so FAR, is that these don't exist,, er but they could give you confidence, so, **one of the things though, is** that lots of the promoters, er of these five million sites on the web, er suggest that we have a second nose, a:nd er that our noses, our our heads are a bit like mice, with this second nose the vomeronasal organ

WYA - 63

and in snakes e too, we have the main olfactory area, and then this little, VNO, and so, **one of the inTRiguing things, is** that if you, find somebody you know, look at their NOSE, in about twenty percent of people, it varies a little bit, erm you may see a little DIMple, erm on the septum er a centimetre or so in, and that was THOUGHT to be, the vomeronasal organ for humans

WYA - 64/65

and it was probably not so much of that as looking at fruit, and getting ripe fruit,, and **one of the big clues is** that great apes don't have °the gorillas and so forth° don't have a vno,, the FOUR is very limited, there's a little bit of erm fmri the magnetic resonance imaging on the brains, of people sniffing things, that MIGHT suggest perhaps we do have a vno but I THIN **the most interesting idea, is** that, it may be all detected by our main olfactory area, our main nose, and there ARE actually lots of examples, of animals that are able to do that, because not all sex pheromones, have to be detected by vnO, SHEEP and PIGS, have sex pheromones but they use their regular NOSE

WYA - 66

well sexual selection, it's all about mate choice, and it's all about why MAles usually, are so smelly [laugh] and we ARE, we are arguably smellier than females, and **the reason we're smelly, er is** because females like it,, er [laugh] or so I am told,,, so, it basically all comes back to the peacock, a:nd the peacock male is a fantastic example as you KNOW, of sexual selection

WAY, - 67

and one person was driven to suggest that a mouse, erm in attracting a FEmale, is actually wafting this, er wonderful, er odour plume, that's like a a peacock tail,, so, what are the characteristics that darwin said, would be inDicative of something that was sexually selected,,, well **the FIRST is**, that the signal would be BIGgest in only one of the sexes, so in the case of peacocks it's the male peacock that has that aMAzing, er er train amazing tail

WYA - 68

so what about humans?,, well er armpits er male armpits smell mo:re than female armpits we just, are SMELLier,,, it's developed only in adults, and **one of the big changes in PUBerty, of course is** all the HAIR that develops in your armpits, and also the GLANDS that change so you now start to secrete the things that will be smelly,, a:nd this is the big question er, °is it used primarily or exclusively in mating° and this is the real problem because working on humans: is REALLY hard

WYA - 72/73

she was able to show that odourless SWEAT, does have a physiological effEct on other women and it changes their cycles, and leads them towards synchronising, and what this sugGESTS, is that there is a priming pheromone that affects not the: women's beHAViour, but their hormonal cycles a:nd **one of the things that,, gave er an indication that it might be a possible contraceptive, another way of influencing horMOnal cycles, was** all the work done on mice, where we DO know that some of these molecules, actually do either a er do oestrose induction er or the synchronisation, of their cycles OR accelerate er puberty we know that that's all driven by smell so **the question then is,,** since we DO know that the main olfactory system can deal with pheromones we don't need to have a vnoO in the way that mice do, perhaps there could be something there

WYA - 73'

there are also some medical uses of smells, er one is, erm this rather intriguing thing, which is we don't know WHY, but **one of the very early signs of Alzheimer's and Parkinson's, i:s a** slight loss in the sensitivity of smell, and there is a scratch and sniff tests erm developed in the university of pennsylvAnia

WYA - 74

and according to: how many of the odours you can SMELL, erm it will give you an indication of whether or not you're, losing your smell, there ARE however lots of problems because you can lose your sense of smell for all sorts of Other reasons including a cold, so, **one of the problems that we want to avoid er is** self-diagnosis where you rush out, discover you can't smell anything, er and then think that you have Alzheimer's, cause it may not be that at all

WYA - 76

so **the conCLUision is**, that pheromones are the commonest communication in species all across the animal kingdom, erm, it pre-adapts for their evolution as SIGnals, there's this aMAzing convergence in insects and vertebrates, and smell is important, but not yet identified

WYA - 77

they, constructed the word, erm from feri to transfer to transMIT, and HOrmone to excite m and **the iDEA was** by analogy with hormones, which are sending a message across your body in the blood, pheromones would transmit a message beTWEEN animals, of the same species, but across the air or across the water, between them

RL - GP2	Beating the Bounds	https://www.bbc.co.uk/programmes/b03dsk4d
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RL - GP2 - 1

So it's quite a TA:SK that I've sort of set myself today, in what what many people regard as kind of, the post-historical art world the post post-modern the the END of art we're in a state now where ANYthing goes,, but **the thing is** I think there ARE boundaries still about what can and cannot be art, m but the limits a:re softer they're FUZZier, and I think they're not FORmal anyTHING can be art I I'm quite happy to engage with that intellectual idea, but I think the boundaries are sociological, tribal philosophical, and maybe even financial

RL - GP2 - 2

But of course there's a subsidiary question that kind of hangs in the air and I maybe want you to hold this one in the back of your mind as I'm giving this talk, why would someone want anything they're doing to be CONSIDered art?, Because I mean there's quite a lot of REAsons and **the most obvious one is**, because they're an A:Rtist it's what I DO, maybe they just want a good excuse to do something you know there's a lot of I fancy doing that let's call it art

RL - GP2 - 3

but **what they did** they got a thousand pound grant, for putting on their deGREE show at the end of their term, at art school a:nd, when it came to the exhibition the exhibition consisted of a series of holiday snaps of them on the Costa del Sol frolicking on the beach, and some holiday souveNIR, and the air tickets and, of course there was OUTrage and the papers got hold of it and it was FRONT PAGE NEWS, art students spend grant on holiday and call it ART and there was you know just °not justifiable° outrage °I thought it was very funny°, but then **the real, COUP that these students pulled off, was**, that they'd faked it, that the money was still in the bank, the TAN had come from a salon, the beach they were on was skegness, the souvenirs had come from the charity shop,, and the tickets were fake, I think they brilliantly double footed everybody's idea that you know art is this stupid mucking about you know that you can do and just call it art

RL - GP2 - 4

and in many ways I am a kind of conCEPtual artist I put myself among those, masqueRAding as a craftsman, and I employ traditional media like pottery and tapestry and and etching, in a kind of teasing reactionary way because I I don't want to question in many ways though writing these speeches has made me m incredibly, thoughtful about what I do mySELF, and **my personal experience if you like of the boundaries of ART,** I I've sort of bumped up not against the formal boundaries so much but I've kind I think of a kind of snobbery cause I think beneath the sophisticated tolerance yeah everybody can make art and everybody everything they do can be art I think there is a little bit of interesting kind of class snobbery going on

RL - GP2 - 5

I thought I would take us all on a hand handy sort of boundary guide so I have my whip here, [whip] to kind of reMIND you when we come to one of the important little markers as I trawl around and I've got several little TESTS, that I've devised, so you might know, when you're looking at a work of art and not just at some old rubbish,, [LAUGHTER] so, **the first, marker post on my trawl around the boundaries is,** is it in a gallery or an art CONTEXT?,, (whip) [LAUGHTER] now, Duchamp's urinal he could used he could have left it plumbed in, but no he brought it into the gallery he went to a hardware place and he bought one and he brought it into the gallery and put it on a plinth

RL - GP2 - 6/7/8

my second e: boundary marker, is it a boring version of something else? [LAUGHTER] (whip),, I call this one the opera joke phenomenon, okay cause when you go to the opera you go for the MU:sic and the colour and the costumes and the DRA:ma get swept up in it, you don't go for the jokes, but of course they have jokes in opera sometimes and everybody LAU:GHS uproariously at these really bad jokes, and sometimes I think that you know **the things that define something as art is** that they're quite boring that they lack entertainment value that they lack pleasure I mean a lot of **one of the most inSULting words you can call an artwork is** DEcorative

RL - GP2 - 9

in nineteen ninety-five cornelia parker conceptual artist had a show at the Serpentine, **part of the display was** a collaboration she did with, oscar winning actress Tilda SWINton where Tilda laid in this glass box, and it was called the maybe and she was asleep and you could go along and look up her nostrils and sort of stare very closely at Tilda Swinton, and it was an interesting thing and it was part of this exhiBItion

RL - GP2 - 10/11

another test that perhaps sounds facetious, I have, is what I call the handbag and HIPster test,, [whip] quite often you can't tell if something is a work of art, apart from the people that are around looking at it, so there's lots of people with beards and glasses and single speed bikes, or oligarchs' wives with great big handbags looking a bit perturbed and puzzled by what they're staring at, that's quite a good way because art is something that is quite, °you know you might say it's quite it belongs to sort of privileged people who've got a good education or a lot of money° and so if those people are kind of staring at it there's quite a high chance that it's art,, [LAUGHTER] and **the other thing you might look for is** a QUEUE, cause people nowadays they love QUEUing for art especially participatory art you know the sort of art that kids can crawl around or you can take an Instagram of yourself in front of

RL - GP2 - 12

right **the next test I have here the next, boundary post on our trawl around the boundary** is the RUBbish dump test, now, this is one of my tutors at college he had this one he said if you want to test a work of art, he said throw it onto a rubbish dump and if people walking by notice that it's there, and say oh what's that artwork doing on that rubbish dump it's PASSED

RL - GP2 - 13

many artists have used destruction so that's not a particularly reliable test the rubbish dump test but I do like it,, and of course **one thing, e: that we have now in the art world which has exPLOded what art can be, and we all have it in our lives it's probably the biggest revolution in my life of course, is**, computers and the WEB, and art projects are very easy to do now because everybody can do a little bit of creativity on the web and put their, YouTube video up and stuff like this

RL - GP2 - 14

and I hope that my little, STI:NGS of the whip [whip] will help you, remember where the edges are when you're next in an art gallery,,but **the final irony of it is, and I love this story, is** that if you go to an art gallery and you see the the FATHER of that exPLOsion, Duchamp's, urinal sitting there, it would have been handmade because the original was destroyed and by the time people became interested in it, you couldn't get that model of urinal anymore and so those urinals were HANDmade,, by a potter

RL - GP2 - 15

but I think you're right in that,, you know, the WEB and I quote YOU here I think in saying that **the danger is that** it could bring into reality Joseph Beuys the artist who said, everybody can be an artist, and you know we have a zillion one person television channels, with 24 hour e access, probably with a viewer of one as well

RL - GP2 - 16/17

S1 : Thank you my name is James Eyres, there's a quote which was bandied about some,, time ago, e that Picasso said, all children are artists, **the problem is**, keeping them artists, and I always, took this to mean that the:, idea of creaTivity, in what produces the work of art, is key, and I'd like to know your feelings on this

S2 : I mean there's loads of rubbish child artists I can tell you now their parents might have their work on the fridge but, °you know not all children are that good at art°, m but there is a truth in that comment in that it's about that kind of relaxation and that spontaneity and that freedom and of course **one of the great ENemies of the contemporary artist, is** self-consciousness because in its very DNA, is self-consciousness here to address the contemporary art world to work in the contemporary art world, you are ACHingly aware the entire time of the AUDience and the HIsTory and the VAlue and all the things, swishing about and so it kills you

RL - GP2 - 18/19

it's important to make art because **the people that get the most out of art,, are** the ones that make it, it's not you know there's this idea that you go to a wonderful art gallery and and it's good for you and it and it makes you a better person, and it informs your SOUL, but actually **the person who's getting the most out of ANY artistic activity, is** the person who makes it because they're sort of expressing themselves and enjoying it and they're in the ZO:NE and you know it's it's a nice thing to do

RL - GP2 - 20

can art be useful? What use is art? Well it's kept me in kind of crisps and beer, [LAUGHTER] em, I mean, **the problem with you know art in many ways is** it's had its role nibbled away over the centuries, in 1400 you know when, it was in cathedrals and it had this amazing power it was, the call of duty of its day it was the you know all-encompassing cultural experience and overwhelming, and NOW its role has shrunk and some people say all that's left is that it's an asset class or it's a sort of titillation for the middle classes on a Sunday afternoon

RL - GP2 - 21

you know the role that it used to have as a communicator of the big ideas I think in some ways it's been eclipsed by all the other media, and but it STILL has a NICHE left, for me **the niche is** that you go and you see the real thing, that is the niche that it still has, because the minute you move away from that it's something ELSE

RL - GP2 - 22

S1 : The thing in the bag, which is contained within the world of of of contemporary art about which it seems to me you're pretty ambivalent you know you knock it quite hard you accuse it of snobbery, pretentiousness and yet at the same time you love it don't you?
S2 : I enjoy the CHALLENGE I mean I think **the one great thing about the art world is** that it's up for a CHALLENGE, and that is what my next lecture's about (LAUGHTER)

RL - GP3	Nice Rebellion, Welcome In!	https://www.bbc.co.uk/programmes/b03f9bg7
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RL - GP3 - 1

and of course all artists they nurture a tender dream that they too are original, you know and **the WORST thing you can ever say if any of you ever go to an art exhibition and you meet the artist at the opening or the private view or something like that the WORST thing you could ever say to them is,** oh your work yeah it reminds me of [LAUGHTER,] Uuurrgh, do not do this this is a bad bad thing to do

RL - GP3 - 2

and I think that, though art, isn't necessarily the crucible of all the cutting edge of our culture anymore it still is inventive, and maybe it does still need to progress, or maybe it's just it's dotted about around the world?, And what sort of art world are we headed into?, and **the thing that we might have to adjust, is** what a cutting edge artist LOOKS like [LAUGHTER],, but when I started at art college, that idea of revolution and change and rebellion was almost the DNA of art

RL - GP3 - 3/4

so I was thinking you know what kind of manifesto would I put now for this new age we're in, and I was thinking what is the ism that we're working for now and I suppose **the real ism we're in now, is** PLURALISM, anything kind of goes and then there's another ism that crops up a lot in the art world now which is GLOBALISM because the art world now is a series of artworks all over the world lots of different countries lots of emerging, world scenes, and of course **one of the big DOMINANT SQUATTING TOAD-like things over the whole art world, is** commercialism, that's a very powerful art movement that's going on, and of course there's always that good old favourite that one that always has enormous power, NEPOTISM

RL - GP3 - 5

and if you think about it all the things that were once seen as subVERsive and DANgerous like tatTOOS and PIERcings and DRUGS and interracial SEX, FETishism all these things,, they sort of crop up on x factor now on a saturday night on family viewing, [LAUGHTER] **the one thing you won't see though,,** underarm hair,, [LAUGHTER] the last truly dangerous thing

RL - GP3 - 6/7

and here's a quote from the musician e:, tracey thorn of everything but the girl, I think it's great it really describes the problem of irony she says,, it is difficult for people in the arts to be entirely sincere about things without looking like they have not thought about it properly,, **the problem with irony is** that it assumes the position, of being the end reSULT, from having looked at it from both SIDES and have a very SOPHISTICATED take on everything so **the danger of eschewing irony, is** that you look as though you've not thought hard enough about it, and that you're being a bit simplistic, you see what I mean? that that that is the kind of double bind you get yourself in, when you know everything is ironic anymore

RL - GP3 - 8

so I go to exhibitions in the MORning on my OWN, when I can go hmnn and you know maybe have a little bit of a MOMent,, [LAUGHTER] I have to protect my tender PARTSs from that wicked IRony,, and perhaps **the most SHOCKing tactic that's left to artists these days, is** sincERity [LAUGHTER] I mean that's why a lot of artists I think, like politics, because you know it's it is real it's serious and they want to BORROW that power because, you know that's something that we're not gonna laugh at because these are big serious issues

RL - GP3 - 9

there's a guy in brazil called bernardo paz, VERY very wealthy mining magnate zillions of pounds and dollars and whatever they have over there, m and he set up this amazing sculpture park called Inhotim in the jungle, FIVE thousand acres and he's, asked artists to put big works that wouldn't necessarily fit in other other sorts of institutions in this aMAzing park in the jungle, and he's now building hotels so, rich tourists and guests can come and SEE this thing and I thought, this is gentrification on STERoids this is he's avoided that awkward, urban decay hipster part of the cycle, he's gone straight from JUNgle to gentrification,, [LAUGHTER] I thought that's smart,,, [LAUGH] and I thought **another place where we find the cutting edge, and innovation of course is** teCHNOlogy you know we're obsessed with it nowadays

RL - GP3 - 10

but they can't compete with the in many ways with the kind of MAjesty of Google EArth or the kind of BUZZ and huge humungous GOSSip of Twitter,, but **one thing the web MIGHT do for art which is maybe a slightly frightening prospect is** that it might fulfil the artist Joseph Beuys' prophecy that anybody, could be an artist that's quite a frightening horrific thought really cause we could drown in a sea of mediocrity

RL - GP3 - 11

S1 : Thank you for a wonderful lecture Professor Deirdre Heenan Provost of University of Ulster Magee campus, and I want to ask a very straightforward question in this era of the internet when we are un-shockable, what then is the role of the artist?

S2 : In many ways, e **the great thing about being an artist is** you make your own caREER, and so you CHOOSE what you want to be and in many ways it might be to make MONEY, it might be to make a political POINT, it might be: to be a ph a challenging philosopher you know there's I think there's a myriad of roles for the artist so to say that there's just one role I think it would be reductive of me to say that

RL - GP3 - 12

S1 : What do YOU think the role the role of the artist should be?

S2 : I suppose **the issue is** there is no single role for the artist anymore in terms of, SHOCK factor

S3 : I think I think it was dangerous when art became synonymous with shock which it DID for a while in the sort of nineteen nineties

RL - GP3 - 13

sometimes it's difficult to avoid the impression that we live in a time,, where things are appreciated not for their intrinsic worth, but for the some instrumental value that they have in achieving some other objective,, and when you spoke about creative economy, **the danger always is** that the focus is on the, economics rather than the creativity,, do you have a sense of what it is or how best it is to articulate, the real value that, art has and the arts have in themSELVES, as expressions of the eSSential dignity of human beings?

RL - GP3 - 14

yeah it's quite a bugbear the creative economy as a word, and I °you know° I think that, w w I think **one of the delicious ironies of the whole situation is,** OFTEN, the creative people, who make the most money, are the ones that never really worried about it in the first place, you know because if you FOCUS on making money I mean there ARE some artists I won't necessarily name them here who have focused on making money, and that's part of their SHTICK

RL - GP3 - 15/16

S1 : banksy is saying exactly that at the moment isn't he? he he's actually saying, **the way to be a successful artist, is** simply not to pursue success just dedicate your life to your art

S2 : yeah and so, I think **the trouble is** sometimes with some of the mo:re, TENDER aspects of culture,, it's like you have to look at them out the corner of your eye, like when I'm talking you know I've got a list of banned words for instance which are COO:L proFOU:ND eclectic

S1 : PAassionate?

S2 : passionate you know I would never ever talk about myself as being any of those,, of course I AM [LAUGHTER],,, but, I would never use them directly because, they eVaporate under the spotlight of examination so easily so, to say oh you've got to do THIS when I hear that brochure speak pouring out of civic leaders, you know like we've got you know we are PAassionate about creaTivity in this city and blah-blah-blah I sort of want to sometimes go, yeah just let it happen just let it happen give them the money and let it happen

RL - JS1	Law's Expanding Empire	https://www.bbc.co.uk/programmes/m00057m8
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RL - JS1 - 1

so why has this vast expansion, in the domain of law happened? **The fundamental reason is** the arrival of a broadly based democracy between the 1860s and the 1920, mass involvement in public affairs has inevitably led to rising demands of the State, as a provider of aMENities, as a guarantor of minimum standards of security, and as a regulator of economic activity

RL - JS1 - 2/3

I want to draw attention to two of these changes, which have I think contributed a great deal to the expansion of law's empire, **one of them, is** a growing moral and social absolutism, which looks to law, to produce conformity, **the other, is** the constant quest, for greater security and reduced risk in our daily lives

[RL - JS1 - 4](#)

two years ago, the courts and the press, were much exercised, with the case of Charlie Gard, a baby who had been born, with a rare and fatal genetic disease, **the medical advice was** that there was no appreciable chance of improvement, the hospital where he was being treated applied to the high court for permission to withdraw treatment and allow him to die

[RL - JS1 - 5](#)

now, there are two: striking features of this story,, **the first, is** that although the decision whether to continue treatment was a matter of clinical judgment, the clinicians involved were unwilling to make that judgment on their OWN, as I suspect that they would have done a generation before, they wanted the endorsement of a Judge, this was not because judges were thought to have any SPECIAL clinical or moral qualifications that the doctors lacked, it was because judges have a power of absolute, by passing the matter to the Courts, the doctors sheltered themselves from legal liability

[RL - JS1 - 6](#)

now of course, the law has always done this in some AREAS, **the classic liberal position, again it was John Stuart Mill who expressed it best, is** that we have to distinguish, between those acts which affect other people, and are therefore proper matters for, legal regulation, and those which affect only the Actor in which case they belong to his personal space, so we criminalise MURder rape theft and fraud we say that the morality of these acts is NOT something that should be left to the conscience of every individual.

[RL - JS1 - 7/8/9](#)

a good example, is provided by some recent animal welfare legislation, take fur farming, England and Scotland, in common with some other European countries have over the last few years banned fur farming,, **the reason, is** not that the farming and humane slaughter of furry animals for human use is itself objectionable, most people accept that rearing and killing animals for food for example is morally acceptable, but we don't eat beavers or minks, **the sole reason for farming them, is** their FUR, **the idea, behind the statutory ban, is** that the desire to wear a beaver HAT or a mink COAT, is not a morally sufficient reason for killing animals, whereas a desire to eat them would be

[RL - JS1 - 10/11](#)

some years ago, the courts had to deal with the case, of a young man who had broken his neck, by diving into a shallow lake at a well-known beauty spot,, he was paralysed for life,, the local authority, was sued for negligence, they had put up warning notices, but **his case was** that since they knew, that people were apt to ignore these warning notices, they should have taken steps to close off the lake altogether,, the Court of Appeal agreed with that,, but when the case reached the House of Lords the judges pointed out that there was a price to be paid for protecting this young man from his own Folly,, **the price, was** the loss of liberty, which would be suffered, by the great majority of people, who enjoyed visiting the lake and were sensible enough to do it SAFELY

[RL - JS1 - 12](#)

in a democracy, the state is not other, it is not either with us or against us, it IS us, which is why most of us are so ambivalent about it, we resent its Power, we object to its intrusiveness, we criticise the arrogance of some of its agents and spokesmen, but our collective expectations depend for their fulfilment, on its persistent intervention in almost every area of our lives, we don't like it, but we want it, **the danger is**, that the demands of democratic majorities for State action, may take forms which are profoundly objectionable, even oppressive, to individuals, or to whole sectors of our society

[RL - JS1 - 13](#)

jonathan thank you very much indeed we're gonna o open this up for questions in just a moment from our audience here at Middle Temple but, **one thought that I had when I was, hearing you speak**, the expansion of law surely isn't that just a natural consequence of a more complex, society? You know, we have more lawyers but, we also have more acCOUNTtants, we have more ACTuaries, more of US doesn't this just show that we live, in a more, complicated service economy?

[RL - JS1 - 14](#)

I'm sure that we do, but we still have a choice, as to whereabouts and quite a broad spectrum, we place the intrusiveness of law and of the State, **my point is** that, in areas where we do have a choice, we have opted to the more intrusive end of the scale

[RL - JS1 - 15](#)

I entirely understand, the concern that you have, but I think that, what I would NOT accept, was that it necessarily means, that decisions on these matters have to be made by judges, **the problem is** that this is a major moral issue, and it is an issue on which although you say that the public is overwhelmingly in favour m a lot of polling evidence suggests that that rather depends on the degree of detail which goes into the asking of the QUESTion, but on any view this is a subject on which people have STRONG, moral, views and on which they disagree

[RL - JS1 - 16](#)

there is, a LARGE number of people who feel, I'm not expressing my own opinion I am simply pointing out that there are MANY people who feel, that, a changing the law so as to allow assisted suicide, would, render large numbers of people, vulnerable to unseen pressures from relatives and so on, there are others who feel that the intervention of somebody in the life of another so as to end it is morally objectionable, now **the question that one has to ask, is, how** do we resolve a disagreement like that?, it seems to me, that whe:re there is a difference of opinion, within a democratic community, we need A political, process, in order to resolve

[RL - JS1 - 17](#)

there's two points the fact that, somebody assisting /YES/ obviously has to be covered but there's a compassionate point as well, which should be e NOT that I should have had to go through caution and all that time before the case was obviously finally dropped, and **the SEcond point is** the law can be adapted, to accommodate, those of SOUND mind with a TERminal illness, who've had and it can be proved psychiatrically that there is NO no pressure from anybody and my husband had to go through a great deal to PROVE this himself.

[RL - JS1 - 18](#)

I'm a barrister member of the house of lords, in lord sumption I think that you're rather nostalgic about the past, and that you see it through rather rose-tinted glasses, in **one of the things that has HAPPened is** the people have actually, turned to the courts, in to deal with the abuses of POWER, and that has been a very imPORTant development and so the exPANsion of law, has actually been a GOOD thing in because many people are able, to take their e: e claims to the Courts and the Courts are the RIGHT place to take them otherwise we would have either people feeling totally disempowered, or they would take to perhaps in the streets instead

[RL - JS1 - 19](#)

your question assumes, that I am opposed, e to the expansion of the domain of law,, all that I am doing, is pointing out, that it has expanded and **the reason why I'm doing that, is,** to try and explain why it is that law has acquired a GREATER, space in our lives and in order to explain why, we have, eNORMously empowered the State, in ways that I quite agree with you, DO need to be controlled

[RL - JS1 - 20](#)

well it would depend on, what law you're talking about, e: I mean law es essentially operates on, ordinary citizens, through criminal SANctions, it operates on governmental ministers and officials, through the device of quashing their decisions, in I think that there are times when **the only way, in which you can achieve, a a resSULT is** to go in for a measure of overkill so I'm certainly not saying that blunt instruments are wrong in all CASEs

[RL - JS1 - 21](#)

I would be opposed to a law, a a against holocaust denial, because I think, that there is absolutely no nonsense, e with one exception and I'll come to it there is no nonsense that people should not be allowed to spout, if they are foolish enough to want to DO so, **the exception that I would make, is** that, free speech is perfectly legitimately, curtailed, in circumstances where it would lead reasonable people or reasonable groups, to VIOlence and that's broadly the position that the law DOES take

[RL - JS1 - 22/23/ 23'/24](#)

S1 : Sailesh Mehta barrister, e are the politics of judges becoming more and more important for us to know about?

S2 : a **short answer to your question, is** that I think that it would be a very BAD idea, to vet the politics of judges, **the oddity is that** the **the rule we currently have is** there's nothing wrong with judges having an opinion, but there IS something wrong when they're expRESSing it or allowing it to become KNOWN, now that might be thought not a particularly logical state of affAIRS, but pragmatically it works in a sensible way, it means that judges do not, make public statements which diminish the confidence that litigants and others will have, e in their deCIisions, **one of the problems that I have and it's something that I want to expand on in future lectures in this series, is** that there are some issues that are put before judges for decision, which are frankly impPOsible, areas where it's imPOssible for them, not to be influenced by their opinions, because they are questions which really a:re not so much what is the law, but what should the law BE, it is very difficult to answer the question, what should the law be, without expressing an opinion of your OWN on the subject.

RL - JS1 - 25/26

I think that the criticism, on that headline, of the divisional court in the Miller case, was frankly abSURD, **one of the interesting things, was that** when the case came to the Supreme Court, there was no criticism along those lines, and I think that **the main reason for that, was** that the proceedings were broadcast, it was quite obvious, to anybody, who listened into extracts on the news or parts of the actual, webcast, e that this was actually a dispute about LAW

RL - JS1 - 27

well I I saw it happen, there w was as Lord Sumption says a lamentable failure of the GOVERNment or the relevant ministers, to protect the judges who had been Pilloried, **the problem it seems to me and I spent 25 years in the House of Commons before being, booted upstairs, is** that, there is a FAILure of understanding of the role, that the law and and the judiciary play in the constitution by e members of Parliament, and that's why we get these sorts of, eRUptions

RL - JS1 - 28

e very often when politicians are presented with a sort of intractable problem or a crisis, **their immediate reaction i:s** to, default to what we call e a judge-led inQUIry, e the problem is too difficult it's too toxic e too controversial for politicians to sort out and so we grasp for a judge knowing slightly, that that wi:ll, mean that there's quite a long TIME before the issue comes back and they may very well have moved ON

RL - JS1 - 29

and the second part of his inquiry, which was going to trespass e o:n more sensitive aspects of the relations between the press and the state, e was DROPPed, **the reason for that, was that** ultimately the politicians, we:re unwilling to take, the risk of having the second part of the inquiry they'd rather decide it themSELVES

RL - JS1 - 30

if you look at, the House of Commons, for instance about one in six or one in seven, of its members are lawyers which VAStly, outnumbers their proportion in society and certainly outnumbers, their proportion of let's say social workers or doctors or scientists, and **maybe part of the antidote to the phenomenon you're describing is** lawyers perhaps BACKing off and then letting the rest of, our diverse society have more of a say in how we're governed

RL - JS2	In Praise of Politics	https://www.bbc.co.uk/programmes/m0005f05
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RL - JS2 - 1

a free society, comprises COUNTless individuals and groups, with conFLicting opinions and interests,, **the first task, of any political system, is** to accommodate these differences, so that people can live together in a single community, without the systematic application of FORCE

RL - JS2 - 2/3

that is why all democracies, have evolved methods of limiting or diluting the power of maJOrities, I'm going to talk about two of them, they are really the only two that MATter, **one of them is** representative politics, and **the other is, LAW**

RL - JS2 - 4/5

one would therefore ordinarily expect the political process to produce a compromise, not entirely to the liking of either camp, but just about acceptable to BOTH, now that may yet happen, but it has proved exceptionally difficult, why is that?., **the fundamental reason, is** the referendum, a referendum is a device, for bypassing the ordinary political process, it takes decision-making out of the hands of politicians, whose interest is generally, to accommodate, the widest possible range of opinion, and places it in the hands of individual electors, who have no reason to consider any opinion but their OWN, **the very object of a referendum, is** to inhibit an independent assessment of the national interest, by professional politicians, which is why, it might be thought rather absurd to criticise them for failing to do so

RL - JS2 - 6 /7/8/9

there are some truths which are uncomfortable to admit, **one of them is** that **an important object of modern democratic constitutions, is** to treat the people as a source of legitimacy, while placing barriers between them and the direct operation of the levers of power, they do this in order to contain the fissiparous tendencies of democracy, to counter the inherent tendency of democracy, to destroy itself, when majorities become a source of instability and oppression, **one of these barriers, as I have argued, is** the concept of representation, **the other is** law, with its formidable bias in favour of individual rights, and traditional social expectations, and a core of professional judges to administer it who are not accountable to the electorate for their decisions

RL - JS2 - 10/11

S1 : for thirty years politics has spectacularly failed to deliver effective collective action, on society's biggest threat, climate breakdown how do we change that?

S2 : I think **the basic problem about climate breakdown, climate change,** is that, it is not in the immediate interest, of the current generation, to do anything about it, which costs them in their pockets or in their way of life, **another part of the problem is** that it's not a problem that can be tackled at national level, it's got to be tackled at international level, and, people tend to feel, that in the absence of international agreement, they might as well, do what they please, rather than go out on a limb

RL - JS2 - 12

well a certain amount of effort is already being made to do that I'd be interested in your view about how successful it is, but, all the: the various legal professions, in addition to: particular solicitors' firms barristers' chambers and so on, have, outreach programmes which endeavour to DO this, **the problem of course about studying law at university, is** that to encourage ethnic minorities or any other group to study law at university, you: have to, reach them while they're still at school and that is very much more difficult for professional bodies to do, but they are doing it to some extent

RL - JS2 - 13

now I entirely agree, that, judges are not, typical of those, who, they serve of the communities that they serve, and I have to tell you, that that applies as much to judges who come from ethnic minorities as to Others, **the problem is this,** and actually the same applies to politicians, they may start, by being from working-class backgrounds, but they don't end up that way

RL - JS2 - 14

my name is Eamon Alaywe I'm from Birmingham **my question is**, in the light of the: recent political controversy surrounding the Supreme Court's ruling, over the 2017 Miller case, which of course you partook in, do you believe that the reforms that were made in the early 2000s in regards to obviously the creation of the Supreme Court, have been effective in enhancing judicial independence?

TED1	Our Refugee System is Failing, Here's How We Can Fix It	https://www.ted.com/talks/alexander_betts_our_refugee_system_is_failing_here_s_how_we_can_fix_it?
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TED1 - 1

so the modern refugee regime, was created in the aftermath of the second world war,, by these guys,, **its basic AIM, is** to ensure, that when a state fails, or worse turns against its own people, people have somewhere to GO, to live in SAFETY and dignity, until they can go home

TED1 - 2

so amira, and her family, face an almost impossible choice,, they have THREE basic options,, **the first option, is** that amira can take her family to a CAMP, in the camp she might get assistance, but there are very few prospects for amira and her family, camps are in BLEAK, arid locations often in the desert,, in the zaatari refugee camp in jordan, you can hear the shells, across the border in syria, at nighttime,, there's restricted economic aCTivity,, eduCation is often of poor quality, and around the world some eighty percent of refugees who are in camps, have to stay for at least five years, it's a miserable existence

TED1 - 3

around the world, we present refugees, with an almost impossible choice, between three options,, encampment, urban destitution, and dangerous journeys,,, for refugees that choice IS, the global refugee regime today, but I think it's a false choice, I think we can reconsider that choice,, **the reason WHY, we limit those options,,, is** because we think, that, those are the only options, that are available to refugees, and they're not

TED1 - 4

the first one I want to think about is the idea of enABling environments, and it starts from a very basic recognition, that refugees are human beings like everyone else, but they're just in extraordinary circumstances, together with my colleagues in oxford, we've embarked on a research project in uganda, looking at the economic lives of refuGEES, we chose uganda not because it's, repreSENTative of all host countries it's not it's exceptional, unlike most host countries around the world, what Uganda has done, is give refugees economic opportunityWOR, it gives them freedom of MOVement,, and the results of that are extraordinary, both for refugees, and the host community

TED1 - 5

the second idea, I want to discuss, is economic ZONES,, unfortunately not every host country in the world, TAKES the approach uganda has taken, most host countries, don't open up their economies to refugees in the same way, but there are STILL, praGMatic, ALternative options, that we can use

TED1 - 6

last april I travelled to jordan, with my colleague the development economist paul collier, and we brainstormed an idea while we were there, with the international community and the government, an idea to bring JOBS to syrians, while supporting jordan's national development strategy, **the iDEA, is** for an economic, ZONE,, one in which we could potentially integrate the employment of refugees alongside the employment of jordanian, host nationals

TED1 - 7

the third idea, that I want to put to you, is PREference matching, between states and refugees to lead to the kinds of happy outcomes you see here, in the selfie featuring angela merkel, and a syrian refugee,, what we rarely do is ask refugees what THEY want, where THEY want to go, but I'd argue we CAN do that and still make everyone better off

TED1 - 8

it could also be used at the NAtional level, where **one of the great CHallenges we face, is** to persuade local communities, to accept refugees, and at the MOment, in my country for instance, we often send engiNEERS to rural areas, and FArmers to the cities which makes no sense at all

TED1 - 9

the fourth idea I want to put to you, is of humanitarian visas,, much of the tragedy and chaos we've seen in europe, was enTirely, avoidable it stems from a fundamental contradiction, in europe's asylum policy which is the following, that in order to seek asylum in europe, you have to arrive sponTAniously, by emBARKing on those dangerous journeys, that I described,, but why should those journeys be necessary, in an era of the budget airline, and modern consular capabilities, they're comPLEtely unnecessary journeys, and last year they led to the deaths of over three thousand people, on europe's borders and within, european territory

TED2	Why Brexit happened and what to do next	https://www.ted.com/talks/alexander_betts_why_brexit_happened_and_what_to_do_next?
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TED2 - 1

but **my question, is** really,, should we have, the degree of shock, that we've experienced since? Was it something that took place overNIGHT? or are there DEEPer STRUctural factors that have led us to where we are today? so I want to take a step BACK, and ask two, very basic questions,, FIRST, what does brexit represent not just for my country, but for all of us, around the world? and SEcond, what can we do about it? how should we ALL, respond?

TED2 - 2

if we look at WHY:, those who wanted to LEAVE, °we call them leavers as opposed to remainers° we see two factors in the opinion polls, that really mattered, **the FIRST, was** immigration and the second sovereignty, and these represent a deSIRE for people to take back conTROL of their own lives and the feeling that they are unrepreSEted, by politicians

TED2 - 3

it was a real shock to ME, and it suggested, that people like me who think of ourselves, as inclusive, open and Tolerant, perhaps don't know our own countries and societies, nearly as well, as we like to believe,, [Applause] and **the challenge that comes from that, is** we need to find a new WAY, to narrate globalization to those people, to recognize that for those people, who have not necessarily been to university, who haven't necessarily grown up with the internet, that don't get opportunities to TRAvEL, they may be unpersuaded by the narrative that WE find persuasive in our often, liberal, bubbles

TED2 - 4

in the leave vote, a miNORity, have peddled, the politics of FEAR, and hatred, creating LIES and mistrust around for instance the idea that the vote on europe, could reduce the number of refugees and asylum-seekers, coming TO Europe, when the vote on leaving, had nothing to DO, with immigration from outSIDE the european union, BUT for a significant majority of the leave voters, **the concern was** disillusionment with the political establishment, this was a protest vote for many, a sense that nobody represented THEM, that they couldn't find a political party, that spoke for them, and so they rejected, THAT political establishment

TED2 - 5

so the question I think we need to ask is my second question, which is HOW should we collectively respond? for all of us, who CARE, about creating Liberal Open, Tolerant societies we urgently need a new vision a vision of a more tolerant inCLUusive globalization, one that brings people with us, rather than leaving them, beHIND

TED2 - 6/7

that vision of globalization, is one that has to start by a recognition, of the positive benefits of globalization, **the consensus, amongst economists, is** that free tra:de, the movement of capital, the movement of people across borders, benefit everyone, on aggregate,, **the consensus amongst international relations scholars, is** that globalization brings interdePENDence which brings cooperation, and peace, BUT, globalization, also has redistributive effects, it creates Winners AND losers

TED2 - 8

so **the question is**, how can we achieve that goal? how can we Balance on the one hand, addressing fear and alieNAtion, while on the other hand, refusing, vehemently to give in to xenophobia, and nationalism? that is the question for all of u, and I think as a social scientist that social science, offers some places to START, our transformation, has to be about both iDEAS and about material change, and I want to give you four ideas, as a starting point

TED2 - 9/10

the SEcond thing that I think is an opportunity, is the idea to encourage, more interaction across diverse, communities,, [Applause] **one of the things that stands out for me very strikingly, looking at immigration attitudes in the united kingdom, is** that iRONically, the regions of my country that are the most tolerant of immigrants, have the highest numbers of immigrants, so for instance, london and the southeast have the highest numbers of immigrants, and they are also by far the most tolerant Areas, it's those areas of the country that have the lowest levels of immigration, that actually are the most exclusionary, and Intolerant, towards migrants

TED2 - 11/12

the third thing that I think is crucial though, °and this is really fundamental°, is we have to ensure that everybody shares in the benefits of globalization,, this illustration from the financial times, post-brexite is really striking, it shows tragically that those people who voted to leave the european union, were those who ACtually benefited the most materially from TRADE, with the european union,, but **the problem is** that those people in those areas didn't perCEive themselves to be beneficiaries, they didn't beLIEve that they were actually getting access to material benefits, of increased trade, and increased mobility, around the world

TED2 - 13/14

I work, on questions predominantly to do with refuGEES, and **one of the ideas I spent a lot of my time preaching mainly to, deVEloping countries around the world is** that in order to encourage, the integration of refuGEES, we can't just benefit the refugee populations, we also have to address the concerns, of the host communities, in local Areas, but in looking at that **one of the policy prescriptions, is** that we have to provide disproportionately better education facilities, health facilities access to social services, IN those regions of high immigration to address the concerns of those local populations, but while we encourage that around the developing world, we don't take those lessons HOME, and incorporate them, in our own societies

TED2 - 15/16

the fourth and final, idea I want to put forward, is an idea that we need more responsible politics, there's very little social science, evidence, that compares attitudes on globalization, but from the surveys that DO exist, **what we can SEE, is** there's huge variation across different countries, and time periods in those countries, for attitudes and tolerance OF, questions like, migration and mobility on the one hand, and free trade on the other, but **one hypothesis that I think emerges from a cursory look at that data, is** the idea, that polarized societies are far less tolerant of globalization, it's the societies like sweden in the pa:st, like canada today, where there is a centrist politics, where right and left work together, that we encourage supportive attitudes, towards globalization

TED3	I Believe We Evolved from Aquatic Apes	https://www.ted.com/talks/elaine_morgan_says_we_evolved_from_aquatic_apes
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TED3 - 1

well we know the answer cause, thomas s kuhn, e wrote,, a a seminal treatise about this back in nineteen sixty-two, he said **what scientists do, when a paradigm, FAILS, is** guess what? they carry on as if nothing had ever happened,, [Laughter] if they haven't got a paradigm they can't ask the QUEstion so they,, say yes it's wrong but supposing it was right,, [Laughter] and,, **the only other option open to them is** to stop asking the QUEStions,, so that is what they have done NOW, that's why you don't hear them talking about it it's YESterday's question

TED3 - 2

CHARles darwin must be spinning in his GRAVE, he knew all about, that kind of science and he called it, hyPOthesis free science, and he despised it from the bottom of his heart, and,, if you're going to say, I'm going to stop talking about selective pressures, you can TAKE the origin of species and throw it out of the window, for it's about nothing else but selective pressures, and **the Irony of it is,** that this is ONE occasion of a paradigm collapse, where we didn't have to WAIT for a new paradigm to come up,, there was one waiting in the WINGS it had been waiting there since nineteen SIXty, when, alister hardy a marine biologist said I think what happened, perhaps our ancestors had a more aQUAtic existence for some of the time

TED3 - 5

so this is,, a CLOSE connection between, nakedness and water, as an Absolute connection it only works one way, you can't say all aquatic animals,, e are naked because look at the sea otter, but you CAN say,, that Every, animal that has become naked has been conDItioned by water, in its own lifetime, or the lifetime of its ancestors, I think this is significant **the only exception, is** the naked somalian mole-rat, which never puts its nose above the surface of the ground

TED3 - 6

I am trying to suggest, that for, forty odd years, THIS aquatic idea has been MIScategorized, as lunatic fringe and it is NOT, lunatic fringe, and **the ironic thing about it is**, that, they are not STAving off the aquatic theory to protect a theory of their OWN, which they've all agreed on, and they love, there is NOthing there, they are staving off the aquatic theory to protect, a VAcuum

TED3 - 7

how do they react when I say these things?., **one very common reaction I've heard about, twenty times is**, but it WAS investigated, they conducted a SErious investigation of this at the beginning, when hardy, put forward his ARticle., I don't beLIEve it, for thirty-five years I've been looking for ANY evidence of ANY incident of that kind, and I've concluded, that that's one of the urban myths, it's never been done

TED3 - 8

I ask people sometimes and they say well of course I like the aquatic theory, Everybody likes the aquatic theory, of course they don't beLIEve it but they like it well I say., why do you think it's rubbish? They say well., everybody I talk to says it's rubbish and they can't all be wrong, can they? **the answer to that loud and clear is** YES, they CAN all be wrong, history is STREWN with the cases when they've all got it wrong

TED3 - 9

ultimately, one of three things is going to happen., either they will go ON for the next FORty years FIFTy years SIXxty years yeah well we don't talk about that let's talk about something interesting, that would be very sad, **the second thing that could happen, is** that some, young genius will arrive, and say I've FOUND it, it was NOT the savanna it was not the water it was THIS., no sign of that happening either, I don't think there's a third option

TED3 - 10

so, the **third thing that might happen, is** a very beautiful thing, if you look back at the early years of the last century, there was a STAND-off a lot of bickering and bad feeling between the believers in mendel, and the believers in, darwin, it ended with a NEW synthesis, darwin's ideas and mendel's ideas blending together., and I think the same thing will happen HERE, you'll get a new synthesis, hardy's ideas and darwin's ideas, will be blended together, and we can go forward from there, and really get somewhere

TED4	Why the Universe Seems so Strange	https://www.ted.com/talks/richard_dawkins_on_our_queer_universe?
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TED 4 - 1

my title, queerer than we can suppose, the strangeness of science, queerer than we can suppose comes from jbs haldane the famous biologist who said., now **my own suspicion is** that the universe, is not only queerer than we supPOSE, but queerer than we CAN suppose, I suspect that there are more things in heaven and earth than are dreamed of, or can be dreamed of, in any philosophy

TED4 - 2

it's so queer, that physicists resort to one or another, paraDOxical, interpretation of it, david deutsch, in the fabric of reality, embrace embraces the many worlds interpretation of quantum theory, because **the worst that you can say about it is** that it's preposterously WAsteful, it postulates a VA:ST, and rapidly GROwing number of universes, existing in parallel, mutually undetectable, except through, the narrow porthole, of quantum mechanical, experiments

TED4 - 3

science has taught us, against all intuition, that apparently SOLid things like crystals and rocks, are really almost entirely, composed of empty space, and **the familiar illustration, is,** the nucleus, of an atom, is a fly in the middle of a sports stadium, and the next atom is in the next sports stadium,, so it would seem the hardest solidest densest rock, is REALLY, almost entirely empty space, broken only by tiny particles so widely spaced, they shouldn't count

TED4 - 4

there's nothing inherent, about red that makes it long wavelength, **the point** is that the nature of the model, is governed by how it is to be USED rather than by the sensory modality, involved

TED5	Activism Needs Introverts	https://www.ted.com/talks/sarah_corbett_activism_needs_introverts/
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TED5 - 1/2

what am I doing? I don't even need the toilet, but **the reason I went was** because I was volunteering for a large charity on climate justice, and it was seven years ago when, lots of people didn't beLIEve in climate change, people were very cynical about activism and **my role with all of my teammates was** to get people to sign petitions on climate justice, and educate them a bit more about the issue, and I CARED deeply about climate change and lots of inequality so I'd go and I'd talk to lots of people which, made me nervous and drained me of energy but I did it because I cared, but I would hide in the toilets because I'd be exhausted,, and I didn't want my teammates, doubting my commitment to the CAU:SE, thinking that I was slacking

TED5 - 3/4

and today I just want to talk about THREE ways, that I think activism needs INtroverts, I think there's lot of other ways but I'm just gonna to talk about three,, and **the first one, is** activism is often very, QUICK, and it's about Doing, so extroverts often **their IMmediate response to injustice is** we've got to do stuff NOW, we've got to react really quickly and yes we do need to react but we need to be straTEgic in our campaigning, and if we just act on ANger, often we do the wrong things

TED5 - 5

so we're good at slow activism, and we're really good at intimate activism, and if this year has told us anything, it's told us, that we need to when we're engaging power holders, we need to engage them by Llistening to people we disagree with, by building bridges not walls walls or wars,, and by being critical friends, not aggressive enemies, and **one example, that I do a LOT with INtroverts but with lots of people, is** make GIFTS, for people in power, so not be outside screaming at them, but to give them something like a bespoke handkerchiefs, saying don't blow it, use your power for good, we know you've got a difficult job, in your position of power how can we help you?

TED5 - 6

the third way I think activists are really,, really missing out if they don't engage introverts, is that introverts like I said, can be half of the world's population, and, most of us won't say that we're introvert or we get embarrassed by saying what overwhelms us, so for ME, a few years ago my mom used to send me texts in capital letters, °and she can now do emojis and everything she's fine°, but as soon as I'd see this text, I'd wince and think, OH it's capital letters it's too much

TED5 - 7

we're put off by BIG and BRASH giant posters and capital Letters and explanation marks telling us what to do and vying for our attention, so **some of the things I DO with people around the world who take PART, is** make small bits of provocative street art which are hung off eye level, very small and they're provocative messages they're not preaching at people, or telling them what to do, they're just getting people to enGAGE in different ways, and think for themSELVES, because we don't like to be told what to do

TED5 - 8

so I've got two calls to action,, for the introverts, and for the extroverts, for the ambivert, you're involved in all of it,, for the extroverts I want to say that, when you're planning a campaign, think about introverts, think about how valuable our skills are just as much as extroverts, we're good at slowing down and thinking deeply and the DEtail of issues we're really good at bringing them out,, we're good at intimate activism, so USE us in that way, and we're good at intriguing people, by doing strange little things that help create conversations and thought, introverts, **my call to action for you is,** I know you like being on your own, I know you like being in your head, but activism needs you, so sometimes you've got to get out there it doesn't mean that you've got to turn into an extrovert and burn out cause that's no use for anyone, but **what it does mean, is** that you should value the skills, and the traits that you have, that activism needs

TED6	How Frustration Can Make Us More Creative	https://www.ted.com/talks/tim_harford_how_messy_problems_can_inspire_creativity/
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TED6 - 1

So the REGular handout would be formatted in something straightFORward, such as helVetica or Times new roman,, but, half these classes were getting handouts that were formatted in something, sort of inTENSE, like HAEettenschweiler, or something with a ZEsty bounce, like comic sans italicized, [LAUGH] now these are really ugly fonts, and they're they're difficult fonts to READ, BUT, at the end of the semester, students were given, eXAMS, and the students who'd been asked to read the more difficult fonts, had actually done BETTER, on their exams, in a variety of subjects, and **the REAson is,** the difficult font, had slowed them down, forced them to work a BIT harder, to THINK a bit more, about what they were reading, to interpret it,, and so they learned more

TED6 - 2

there are lots and lots of different v:ariables, the operating temperature, the maTE:rials all the different DIMensions the shape,, you can't solve that kind of problem, all in one GO, it's too hard do what do you do?, WELL, **one thing you can do, is** try to solve it step-by-STEP, so you have some kind of PROtotype, a:nd you tweak, it you test, it you improve, it you tweak, it you test it, you improve it

TED6 - 3/4

but you know what would make it, a BETter way?,, dash of mess,, you add randomness, early on in the process you make CRAzy moves you try STUpid things, that shouldn't work, and that will tend to make the problem-solving work BETter and **the REAsOn for that is, the trouble with the step-by-step PROcess the marginal gains, is** they can walk you, gradually, down a dead end,, and if you start with the RANdomness, that becomes less likely, and your problem-solving, becomes more robust

TED6 - 5

and **one of the ways in which he creates this disruption is** through, this, remarkable deck of CAR:ds,, ° I have my signed copy here, thank you brian°, they're called the oblique strategies he developed them with a friend of his,, a:nd when they're stuck in the studio, brian eno will reach for one of the cards he'll, draw one at random and e, he'll make the band follow the instructions on the CARD

TED6 - 6

carlos alomar great rock guitarist, working with eno on david bowie's, LOdger album, a:nd at one point he turns to brian and says,, brian this exPERiment is STUpid,,, but **the thing is** it, ,was a pretty good album, but Also, carlos alomar, thirty-five years LATER, now uses the oblique strategies, and he tells his STUdents to use the oblique strategies because he's realized something,, just because you DON't like it, doesn't mean it isn't HELping you

TED7	Climate Change is Happening, Here's How we Adapt	https://www.ted.com/talks/alice_bows_larkin_we_re_too_late_to_prevent_climate_change_here_s_how_we_adapt/
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TED7 - 1

now let's just pause for a moment, and think about this four-degree, global average temperature,, most of our planet, is actually made up of the SEA,, now because the sea has a greater thermal inertia than the LAND,, the average temperatures over land are actually going to be Higher, than they are over the sea, **the second thing, is** that we as human beings don't experience global average temperatures, we experience HOT days COLD days, RAINy days, especially if you live in Manchester like me

TED7 - 2

and **the problem with these exTREMES and not just the temperature extremes but also, the extremes in terms of STORMS and other climate impacts is** our infrastructure, is just not set up to deal with these sorts of EVENTS so our roads and our RAIL networks have been designed to last for a long TIME and withstand, only certain amounts of impacts in different parts of the WORLD, and this is going to be extremely CHallenged

TED7 - 3

so this pose,s really big challenges for us,,, **the other thing it does is** it tells us something about energy policy, so if you live in a part of the world where per capita emissions are already HIGH, it points us towa:rd,s reducing ,energy demand, and that's because with all the will in the world, the large-scale engineering infrastructure, that we need to roll out rapidly to decarbonize the supply side of our energy system, is just simply not going to happen in TIME, so it doesn't matter whether we choose nuclear power or carbon capture and storage, upscale our biofuel production, or go for a much bigger, roll-out of wind turbines and wave turbines, all of that will take TIME

TED7 - 4

another issue that we really need to GRApple with, is the issue, of well-being and equity, there are many parts of the world, where the standard of living, needs to rise,, but with energy systems current currently reliant on fossil fuel, as those economies grow so will emissions,, and now if we're all constrained by the same amount of carbon budget, that means that if some parts of the world's emissions are needing to RISE, then other parts of the world's emissions, need to reduce

TED7 - 5

yeah I mean it's just nowhere near enough to avoid two degrees I mean, **one of the things that often e when there are these modeling studies that look at what we need to DP, is** they tend to hugely overestimate how quickly, other countries in the world can start to reduce eMissions, so: they make kind of heroic assumptions about that, and the more we do that because it's the cumulative emissions the short-term stuff that really matters so it does make a huge Difference, if a big country like China for example continues to grow even for just a few extra YEARS that will make a big difference to, when we need to decarbonize so, I don't think we can even SAY when it will BE because it all depends on what we have to do in the short TERM

TED8	A New Way to Explain Explanation	https://www.ted.com/talks/david_deutsch_a_new_way_to_explain_explanation/
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TED8 - 1

but we know about those things,, how? well **the classic, empiricist answer,, is**, induction the unseen, reSEMBLES the seen, but it doesn't, you know what the clinching evidence was that space-time is curved? it was A photograph not of space-time, but of an eCLIPSE ,with a dot, THERE rather than there and the evidence for evolution? Some ROCKS, and some finches

TED8 - 3

so, in science, TWO false approaches blight progress one is well known, untestable theories, **but the more important one** is explaNATIONless theories whenever you're told that some existing statistical trend, will continue, but you aren't given a hard-to-vary account of what CAUSES that trend, you're being told a wizard did it

TED8 - 4

now **our current explanation of seasons,, is** that the earth's axis is TILTED like that,, so, each hemisphere tilts toWARDS the sun for half the year and away, for the Other half, better,, put that up [Laughter] that's, a GOOD explanation

TED9	The Refugee Crisis Is a Test of our Character	https://www.ted.com/talks/david_miliband_the_refugee_crisis_is_a_test_of_our_character/
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TED9 - 1

I'm gonna speak to you about the global, refugee CRIsis and **my AIM,, is** to show you that this crisis, is MANageable not unsolvable,, but ALSO, show you that this is as much about US, and who we are as it is a trial, of the refugees on the front line

TED9 - 2

this talk,, is about FREderick, about helud, and about millions like them, why they're displaced, how they survive, what help they need and what our, responsibilities are I I truly believe this,, that THE biggest question in the twenty-first century, concerns our duty, to strangers, the future YOU, is about your duties, to strangers, you know better than anyone the world is mo:re, connected, than ever before, yet **the great danger, is** that we're consumed, by our divisions, and there is no better test of that, than how we treat, refugees

TED9 - 3

remember, anyone who asks you are they properly vetted?, that's a REALLY, SENSible and good question to ask,, **the truth is**,, refugees arriving for resettlement, are more vetted than ANY other population arriving in our COUNtries, so while it's reasonable to ask the question it's not reasonable to SAY, that refugee is another, word for TErrorist

TED9 - 4

it's also revealing about whether we KNOW our own history, **the reason that refugees have rights around the world is** because of exTRAOrdinary western leadership, by statesmen and women after the second world war, that became universal rights,, trash the protections of refugees, and we trash our own HIstory

TED9 - 5

and I suppose like e e only a teenager could, when I met him,,, he was this, white-haired gentleman I said to him, why did you do it? Why did you:, take that risk? And he looked at me and he shrugged and he said, in french, on doit, one must, it was, inNATE in him it was natural and **MY point to you is** it should be natural and innate, in us too, tell yourself,,, this refugee crisis is manageable, not unsolvable, and each one of us, has a personal, responsibility to help make it so, because THIS, is about the rescue of US and our values, as well as the rescue of refugees and their lives

TED9 - 9/10

well I think that you're right to say, that the leadership FORged in WAR, has a different temper and a different tempo and a different outlook than, leadership forged in PEACE, and so **MY answer would be** the leadership has got to co:me, from below not from, above I mean a recurring theme of the conference this week, has been about, the; democratization of power, and we've got to preserve our own democracies, but we've got to also activate our own, democracies and when people say to me there's a backlash against refugees **what I say to them is**, no there's a polarization, and at the moment, those who are FEARrful are making more noise, than those who are proud, and so **my answer to your question is** that we will, sponsor and encourage and give confidence to leadership, when we mobilize, ourselves, and I think that when you, are in a position of looking for leadership, you have to look inside, and mobilize in your own community to try to create conDitions, for a different kind of settlement

TED10	What Humans Can Learn From Semi-Intelligent Slime	https://www.ted.com/talks/heather_barnett_what_humans_can_learn_from_semi_intelligent_slime_1/
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TED10 - 1/2/3

For example, a team in Hokkaido University in JaPAN, filled a maze, with slime mold it joined toGEther and formed a mass cell, they introduced food at two points, oats of course and it formed a connection between the food, it retracted from empty areas and dead ends,, there are FOUR possible routes through this maze, yet time and time again, the slime mold, established the shortest and the most effFicient, route, quite CLEver,, **the conclusion from their experiment was** that the slime mold HAD a primitive form of intelligence,, another study exposed cold air at regular intervals to the slime mold, it didn't like it, doesn't like it cold, doesn't like it dry, they did this at repeat intervals,, and each time the slime mold, slowed down its growth, in response,, however at the next interval, the researchers DIDN't put the cold air on, yet the slime mold slowed down in anticiPation of it happening, it somehow, KNEW that it was about the time for the cold air that it didn't like, **the conclusion from THEIR experiment, was** that the slime mold was able to LEARN,, a third experiment,, the slime mold was inVited, to: explore a territory covered in, oats, it fans out, in a branching pattern, as it GOES, each food node it finds it forms a network a a connection to, and keeps, foraging, after twenty-six hours it established quite a firm network, between the different oats, now, there's nothing remarkable in this until you learn that the centre oat that it started from represents the city of TOkyo, and the surrounding oats, a:re suburban railway stations, the slime mold had replicated the tokyo transport network,, [Laughter] a complex system developed over time by, community DWELLings civil engineering urban planning what had taken us, well over one hundred years took the slime mold just, over a day,, **the conclusion from their experiment, was** that the slime mold can form efficient networks, and solve, the traveling salesman problem

TED10 - 4

world over, teams of researchers, are, DEcoding its biological principles to understand its computational rules, and applying that learning to the fields of eLEctronics programming and robotics,, so, **the QUESTION is**, how does this thing work?, It doesn't have a central nervous system, it doesn't have a BRAIN, yet it can perFORM, behaviours that we associate with brain function, it can LEARN it can remember it can solve problems it can make decisions,, so, where does that intelligence lie?

TED10 - 5/6

e you know this is a ludicrous experiment in many many ways you know this this, isn't hypothesis-driven we're not trying to pro:ve demonstrate anything but **what it did provide us was** a way, a way of engaging a broad section of the public, with ideas of intelligence, agency, autonomy,, and provide a playful platform, fo:r discussions,, about the the things that that ensued, **one of the: most exciting things about, this e experiment was** the conversation that happened afterwards,, an entirely spontaneous symposium happened in the park,, people talked about, the human psychology of how Difficult it was to let go of their individual e personalities and egos, other people talked about bacterial communication, ee each person brought in their OWN individual,, interpretation, and **our conclusion from this experiment was** that the people of rotterdam were HIGHly cooperative, e especially when given BEER

TED11	The Fascinating Physics of Everyday Life	https://www.ted.com/talks/helen_czerski_fun_home_experiments_that_teach_you_physics/
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TED11- 1

so this was the: this was the sort of the you know this is what physics is like there's all these kinds of hieroGLYphics these are e to do with waves and particles, that is an artist's impression of two black holes colliding which makes it look worth watching to be honest, °I'm glad I didn't have to write the risk assessment for whatever was going on there° **the point is** this is the image of physics right? It's WEIRD and difficult, it's done by slightly strange people, dressed in a slightly strange way it's inACCESSible it's somewhere else, and fundamentally why should I care?

TED11 - 2

and **the problem with that, is** that, I'm a physicist and I study THIS, this, this is my job, right, I study the interface between the atmosphere, and the ocean, the atmosphere is massive the ocean is massive the thin layer that joins them together, is REALLY important because that's where things go, from ONE huge reservoir to the other, you can see that the sea surface, e I was that was me who took this video °the average height of those waves by the way was ten meters° so this is definitely it's definitely PHYsics happening here, there's lots of things this is definitely physics, and yet it's not included in our cultural, perCEption of physics and that bothers me

TED11 - 3/4

but **the thing is** you will notice there's a very large GAP in the middle, and IN that gap there are many things, there are planets and toasts and volcanoes and clouds and clarinets and bubbles, and dolphins and all sorts of things that make up our everyday life, and THESE are also, run by physics you'd be surp there is physics in the middle, it's just that nobody talks about it, and **the thing about all of these is** that, they all run on, some,, a relatively small number of physical laws things like Newton's laws of MOTION, thermodynamics, some rotational dynamics, the physics in the middle applies over a HUGE range, from very very small things to very very big things you have to TRY very hard to get outside of this

TED11- 5/6

and fundamentally, this is the bit, that really matters to me on an everyday BASis and this is the bit that we don't talk about there's plenty of physics research going on here, but because it isn't doesn't involve, pointing at stars people somehow, for some reason think it's not there, NOW **the cool thing about this, is** that there's SO many things, in this middle pit this middle bit ALL following the SAME physical LAWS, that we can see those laws, at work, almost all the time around us I've got a little video here,, so **the game is**, one of these eggs is e RAW and one of them has been BOILED and, I want you to tell me which one is which

TED11 - 7

the one on the LEFT, yes and even though you might not have tried that you all knew, and **the reason for it is** that, you set them spinning e that's all right, and when you stop the COOKED egg the one that's completely solid you stop the entire egg, when you stop the other one you only stop the SHELL the liquid inside is still rotating, because nothing's made it STOP and then it pushes the shell round again so the egg starts to rotate again, a:nd this is brilliant,, right

TED11 - 8/9

and Hubble has been floating in free space for twenty-five years NOT touching anything, and yet it can POINT to a tiny region of sky for eleven and a half DAYS, °it did it in sections°, em accurately enough to take amazing images like this so **the QUEStion is** how does something that is NOT touching anything, how does it know where it is? And **the ANswer is** that right in the middle of it, it has something that to my great disappointment isn't a raw egg, but basically does the same JOB, it's got gyroscopes which are spinning and because of the law, of conservation of angular moMEntum, they keep spinning with the same axis, e indefinitely and Hubble kind of rotates around them and so it can orient itself

TED11 - 10

and that's really important, because, physics IS all about patterns and a small number of patterns give you access, to ALL, almost ALL of the physics in our everyday world, and **the thing that's BEST about this is** it involves playing with toys, things like the egg shouldn't be dismissed as the munDANE little things that we just, give the kids to play with on a saturday afternoon to keep them quiet, THIS is the stuff that actually really matters because this is the laws of the Universe and it applies to EGGS, and TOAST falling butter-side down and all sorts of other things just as much, as it applies to modern technology e and anything else that's going on in the world

TED11 - 11

e:m raisins in lemonade which is always a good thing to play with if you're at a boring party, FISH some raisins out of the bar snacks, PUT them in some lemonade, e: it's got THREE consequences, **First thing is** it's quite good to watch, try it, SEcondly it sends the boring people away, thirdly it brings the interesting people to you you win on all fronts, e:m and then there's spin and gas laws and viscosity, there's these little patterns and they're RIGHT, around us everywhere

TE11 - 12

they might discover some new quantum mechanics, but apples right here are still gonna fall down,, SO, **the question is,** how I get asked you know asked sometimes how do you start? What's the place to start if you're interested in the physical world in not being helpless, a:nd in finding some toys to play with? so, **here is my suggestion to you** so some things to start with so it starts right, the place to start is that moment and adults do this right, you're drifting along somewhere and you spot something and your brain goes, OH, that's weird,, and then your consciousness goes, OH you're an adult, keep going,, and that's the point right hold that thought, that bit where your brain went OH that's a bit odd,, because there's something there to play with and it's worth you playing with it so that's the place to start

TED11 - 13/13'

if you don't have any of those little moments, e on your way home from from this event **here are some things to start with** put raisins in lemonade it's highly entertaining, e watch a coffee spill dry I know that sounds a little bit like watching paint dry, e but it does do quite weird things it's worth watching, e get a I am, you know what I'm an acquired taste at dinner parties if there are teacups around there are so many things you can do to play with teacups it's brilliant e **the most obvious one is** to get a teacup, get a SPOON, TAP the teacup around the rim, and LIsten and you will hear something strange e: and **the other thing is,** push your toast off the table, push some toast off the table cause you CAN and you'll learn stuff from it and if you're feeling really ambitious, try and push it off in such a way that it doesn't fall butter-side down e: which is possible

TED11 - 14

so **the point of all of this is** that, first of all we should ALL play with toys we shouldn't be afraid to investigate the physical world for ourselves, with the tools around us because we all have access to them, it MATTERS because if we want to understand society if we want to be good Citizens, we need to understand the framework on which everything else MUST be based

TED11 - 15

so playing with toys is GREAT, understanding how to keep our life-support systems going is great, but fundamentally **the thing that we need to CHANGE, in the way that we talk about physics, is** that we need to understand that physics isn't out there with WEIRD people, and STRANGE hieroglyphics for somebody else in a POSH lab, physics is right here, it's for us and we can all play with it

TED12	Can Technology Solve our Big Problems	https://www.ted.com/talks/jason_pontin_can_technology_solve_our_big_problems/
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TED12 - 1

so, why did they go? they didn't bring much back eight hundred and forty-one pounds of old rocks and, something all twenty-four, later emphasized, a new sense of the: smallness and the fragility, of our common home, why did they go? **the cynical answer is** they went because president kennedy wanted to show the soviets, that his nation, had the better rockets but kennedy's own words at rice university in nineteen sixty-two, provide a better clue

TED13	Beware Neuro-bunk	https://www.ted.com/talks/molly_crockett_beware_neuro_bunk
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TED13 - 1

when this happened, a part of me thought well, what's the big deal? so the media oversimplified a few things but in the end, it's just a news story,, and I think a lot of scientists have this attitude,, but **the problem is** that this kind of thing happens all the TIME and it affects, not just the stories you read in the NEWS, but also the products you see on the shelves, when the headlines rolled what happened was, the marketers came calling,, would I be willing to provide a scientific endorsement of a mood-boosting bottled water? Or would I go on television to demonstrate in front of a live audience that comfort foods really do make you feel better?

TED13 - 2

so what I'm gonna DO is show you how to spot, a couple of classic moves, dead giveaways really for what's variously been called, neuro-BUNK, neuro-BOLLOCKS or my personal favourite, neuro-flapdoodle,, [laugh] so **the first, unproven claim, is** that you can use brain scans, to read people's thoughts, and emotions,, here's a study published by a team of researchers as an op-ed in the new york times,, the headline? You love your iphone, literally, it quickly became the most emailed article, on the site

[TED13 - 3](#)

now, there's just one problem with this line of REASONing, and that's that the INSula, does a LOT,, sure it is involved in positive emotions like love, and compassion, but it's also involved in TONS of other processes like, MEMory, LANguage, atTENTion, even anger disgust, a:nd pain, so based on the same logic, I could equally conCLUde, you hate your iphone,, **the point here IS**, when you see activation in the insula you can't just pick and CHOOSE your favorite explanation, from off this list, and it's a REALLY long LIST, my colleagues tal yarkoni and russ poldrack have shown that the insula, pops up in almost a THIRD, of all brain imaging studies that have ever been published

[TED13 - 4](#)

there's just one problem,, e **the broa:d consensus in neuroSCIENce is** that, we can't yet diagnose mental illness, from a single, brain scan,, BUT, these clinics have treated TENDS of thousands of patients to date, many of them children, and spect imaging involves a radioactive injection so, exposing people to radiation, potentially harmful

[TED13 - 8](#)

a couple of researchers asked a few hundred people to read a scientific article, for half the people, the article included a brain image, and for the other half it was the SAME article but it didn't have a brain image, [laugh] at the end °you see where this is going° e people were asked whether they agreed with the conclusions of the article,, so this is how much people agree with the conclusions e with no image, and this is how much they agree with the SAME, article that DID include a brain image so **the take-home message here IS**, do you want to sell it? put a brain on it

TED14	Why do we Sleep	https://www.ted.com/talks/russell_foster_why_do_w e_sleep
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[TED14 - 1/2](#)

the point I'm trying to make, is that, when you're asleep, this thing doesn't shut down in fact, some areas of the brain are actually more active, during the SLEEP state than during the wake state,, **the other thing that's really important about sleep, i:s** that it doesn't arise from a single structure within the brain, but i:s to some extent a network property and if we flip the brain on its BACK, °I love this little bit of spinal cord here°, e this bit here, is the hypothalamus, and right under there, i:s a whole raft of interesting structures not least the biological clock, the biological CLOCK, tells us when it's good to be UP, when it's good to be aSLEEP, and what THAT structure does is interact with a whole raft of other, e areas within the hypothalamus the lateral hypothalamus the ventrolateral preoptic nuclei

[TED14 - 3](#)

there are DOzens of different ideas about why we sleep,, and I'm going to outline three of those,, **the First is**, sort of the restoration idea, and it's somewhat intuitive, essentially, all the stuff we've burned up during the day, we resTORE we rePLACE we reBUILd during the night, and indeed as an explanation, it goes back to aristotle so that's what two thousand three hundred years ago, it's gone in and out of fashion, it's fashionable at the MOment because, what's been shown is that within the brain a whole raft of genes, have been shown to be turned on only during sleep, and those genes are associated with restoration and metabolic pathways, so, there's good evidence for the whole, restoration hypothesis

[TED14 - 4/5](#)

okay, SO, we've had three explanations for why we might sleep and, I think **the important thing to REalize is** that the details will vary and it's probably we sleep for multiple different reasons, but sleep, IS, not an indulgence it's not some sort of thing that we can, take on board rather casually, e:m I think that sleep was once, likened to, an upgrade from economy to business class you know the equivalent of, it's not it's not even, a an upgrade from economy to FIRST class, **the critical thing to realize is** that, if you don't SLEEP,, you don't fly, essentially you never get there

[TED14 - 6](#)

well, my goodness gracious, erm well thank you very much indeed for not falling aSLEEP, [laugh] because that's what your brain is craving, **one of the things that the brain does, i:s,** indulge in micro-sleeps, this involuntary falling aSLEEP, and you have essentially no control over it

[TED14 - 7](#)

STRESS, tired people are massively stressed, e:m and **one of the things of stress of course is** loss of MEMory which is e what what I sort of just then had a little LAPse of, and and and but stress is so much MORE e so if you're if you're acutely stressed, not a great problem, but it's sustained stress associated with sleep loss that's the problem, so, sustained stress leads to suppressed immunity, and so, tired people tend to have higher rates of overall inFECtion and there's some very good studies showing, that SHIFT workers for example have higher rates of cancer

[TED14 - 8](#)

make your bedroom, a haven for sleep, **the First critical thing, is** make it as dark as you possibly can, and also make it slightly cool, very important, actually,, reduce your amount of light exposure at least half an hour before you go to bed, light, increases levels of alertness and will delay sleep, what's the last thing that most of us do before we go to bed? We stand in a MAssively lit bathroom, e we're looking into the mirror cleaning our teeth, it's the worst thing we can possibly do to before we go to sleep

[TED14 - 9](#)

old people need less sleep, not true,, the sleep demands of the aged do not go down, essentially sleep fragMENTS, and becomes less roBUST but sleep requirements do not go down, and **the FOURTH, myth is** early to bed early to rise makes a man healthy wealthy and wise, well that's wrong at so many different levels

[TED14 - 10](#)

there is NO no evidence, that, getting up early and going to bed early, gives you more wealth at all there's no difference in socioeconomic status,[LAUGH] in my experience **the only difference between morning people and evening people, is** that THOSE people that get up in the morning, early, are just horribly smug

[TED14 - 11](#)

so, what's going on? and **the really exciting news is** that, mental illness, and sleep are not simply asSOciated, but they are PHYsically linked within the brain, the neural networks that predispose you to normal sleep give you normal sleep, and those that give you NOrmal mental health, are overlapping

TED14 - 12/13

other work flowed from these studies, **the first, was** that, sleep disruption actually precedes, certain, types, of mental illness and we've shown that in those young individuals who are at high risk of developing, biPOLar disorder they already have a sleep abnormality, PRIor to any clinical diagnosis of of bipolar, **the other bit of data was** that, sleep can sol sleep disruption may actually exacerbate make worse the mental illness state my colleague dan FREEman has used a range of agents which have STAbilized sleep, and reduced levels of paranoia in those individuals, by fifty percent

TED14 - 14/15

so what have we got? We've got, IN,, these connections, some really exciting things, in terms of the neuroscience, by understanding these two systems we're really beginning to understand how both sleep, and mental illness are generated and, regulated within the brain, **the SEcond area is** that if we can, use sleep and sleep disruption as an early WARning signal, then we have the CHANCE of going in if we KNOW these individuals are vulnerable, early intervention then becomes possible and **the THIRD, which I think is the most exciting, is** that we can think of the sleep centres within the brain as a new therapeutic target STAbilize sleep in those individuals who are vulnerable, we can certainly make them healthier, but also, alleviate, some of the appalling symptoms, of mental illness

TED15	The Mysterious Workings of the Adolescent Brain	https://www.ted.com/talks/sarah_jayne_blakemore_the_mysterious_workings_of_the_adolescent_brain
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TED15 - 1

so **a second line of enquiry that we use to TRACK changes in the adolescent brain is,** using FUNctional m r i to look at changes in brain aCTivity across age, so I'll just give you an example from MY lab so in my lab, we're interested in, the SOocial brain that is, the network of brain regions that WE use to understand other people and to interact with other people

TED15 - 2/2'

so I like to show a a photograph of a SOccer game, to illustrate TWO aspects, of how your social brains work, so this is a soccer game, michael owen has just missed a goal and he's, lying on the ground, and **the FIrst aspect of the social brain that this picture really nicely illustrates is** how automatic and insTINCTive, social emotional responses are so, within a split second of michael owen missing this goal, everyone is doing the same thing with their arms and the same thing with their face even michael owen as he slides along the grass is doing the same thing with his arms, [LAUGH] and presumably has a similar facial expression and **the only people who don't, are** the guys in YEllow at the back

TED15 - 3/4

in my lab we bring adolescents and adults, into the lab to have a brain scan we give them some kind of TASK, that involves thinking about other people their minds their mental states their emotions, and **one of the findings that we've found several times now as have other labs around the world, is** part of the prefrontal cortex called MEDial prefrontal cortex °which is shown in blue on the slide and it's right erm in the middle of prefrontal cortex in the in the midline of your head° this region is more active in adolescents when they make these social decisions and think about other people, than it is in adults and this is actually a meta-analysis of NINE different studies, in this area from labs around the world and they all show the same thing that activity in this medial prefrontal cortex area, DEcreases during the period of adolescence,, and we think that might be because adolescents and adults, use a different mental approach a different cognitive strategy to make social deCIisions, and **one way of looking at THAT is** to do beHAVioural studies, whereby we bring people into the lab and we give them some kind of, behavioural task

TED15 - 5

so imagine that you're the participant, in one of our experiments you come into the lab,, you see this computerized ta:sk,, in this task you see a set of shelves, now there are objects, on these shelves on some of them, and you'll notice there's a GUY standing behind the set of shelves, and there are SOME objects that he CAN'T see they're occluded from his point of view with a kind of GREY: piece of wood, this is the same set of shelves from HIS point of view notice that there are only some objects, that he can see, whereas there are many more objects that you can see, now **your TASK is** to move objects around the DIREctor, standing behind the set of shelves is going to direct you to move objects around, but remember he's not going to ask you to move objects that HE can't see

TED15 - 6

so we we sometimes m: laugh about teenagers we, they're parodied, sometimes even demonized in the MEDIA, for their kind of TYpical teenage behaviour they take RISKS, they're sometimes MOOdy, they're very self-CONscious, I I have a really nice anecdote from a friend of mine who said that,, **the thing he noticed MOST about his teenage daughters, before and after puberty was** their LEvel of embarrassment in front of HIM so he said, before puberty, if my two daughters were messing around in a shops I'd say HEY stop messing around and I'll sing your favourite song and INSTantly they'd stop messing around and he'd sing their favourite SONG, after puberty that became the THREAT

TED15 - 7

so people often ask, well is adolescence a kind of REcent phenomenon? is it something we've invented recently in the west? and actually, **the answer is** probably not, there are lots of descriptions of adolescence in in history, that sound very similar to the descriptions we use toDAY

TED16	Why we Laugh	https://www.ted.com/talks/sophie_scott_why_we_laugh
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TED16 - 1

now incidentally,, what they were laughing AT, was a SONG, which people used to SING, which was based aROUND, signs in toilets on TRAINS, telling you what you COULD, and could not DO, in toilets, on trains, and **the thing you have to remember about the English is** of course we do have an imMENNsely sophisticated sense of humour [Laughter]

TED16 - 3

something that robert provine has pointed out as you can see [HERE](#) and in fact **the reason why we were laughing when we heard those funny laughs at the START, and why I was laughing when I found my PArents laughing, is** that it's an eNOrmously beHAviourally conTAgious, effect, you can catch laughter from somebody else, and you are more likely to catch laughter off somebody else if you know them, °so it's still modulated by this social context°, you have to put humour to one side, and think about the social meaning of laughter because that's where it really, that's where its origins lie

TED16 - 5

now **something I've got very interested in, is** different kinds of laughter, and we have some neurobiological evidence, about how human beings vocalize that sugGESTS, there might be two kinds of laughs that we have

TED16 - 6

the thing I really like about that, is it's all very kind of serious until he jumps onto the ice and as soon as he doesn't go THROUGH the ice, but ALSO, there isn't blood and bone everywhere, his friends start LAUGHing, and imagine if that had played him out with him standing there going no seriously heinrich I think this is broken, e; we wouldn't enjoy watching that that would be stressful, or if he was running around with a visibly broken leg laughing and his friends are going heinrich I think we need to go to the hospital NOW, again that also wouldn't be funny

TED17	The Voices in my Head	https://www.ted.com/talks/eleanor_longden_the_voices_in_my_head
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TD17 - 2

TEN years, after the voice first came I finally graduated this time with the highest degree in psychology the university had ever given, and one year later the highest masters, °which shall we say isn't bad for a madwoman° in fact one of the voices actually dictated the answers during the exam which technically possibly counts as cheating [LAUGHTER] and to be honest, sometimes I quite enjoyed their attention as well as oscar wilde has said **the only thing worse than being talked about is** not being talked about, it also makes you very good at eavesdropping, because you can listen to two conversations simultaneously so it's not all bad

TED18	What Doctors Don't Know about the Drugs they Prescribe	https://www.ted.com/talks/ben_goldacre_what_doctors_don_t_know_about_the_drugs_they_prescribe
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TED18 - 1

like most of you I susPECT, I don't really believe that people can see into the future I don't beLIE:VE in precognition and every now and then you HEAR that somebody has been able to predict something that happened in the future, and that's probably becau:se it was a FLUKE and we only HEAR about the FLUKES, and about the FREAKS, we don't HEAR about all the times that people got stuff, WRONG now we expect that to happen with silly stories about precognition, but **the PROblem is,** we have exactly the same problem in academia and in medicine, and in THIS environment, it costs LIVES

TED18 - 2

people will do lots and lots and LOTS of different studies and the ocCAsions when it WORKS, they will publish and the ones where it doesn't work they won't, and their FIRST recommendation of how to FIX this problem,, because it is a problem,, because it sends us all down blind alleys, **their first recommendation of how to fix this problem, is** to make it easier to publish negative reSULTS in science, and to CHANGE the incentives, so that scientists are enCOURaged to post, more of their negative results, in public

TED18 - 3

so in nineteen eighty,, some researchers did a study on a drug called LORcainide, and this was an anti-arrhythmic drug, a drug that suppresses abnormal heart rhythms, and **the Idea was,** after people have had a heart attack they're quite likely to have abnormal heart rhythms so if we GIVE them, a drug that supPREsses abnormal heart rhythms, this will increase the chances of them surViving,, early on in its development they did a very small trial, just under a hundred patients fifty patients got lorcaïnide and of those patients TEN died, another fifty patients got a DUmmy placebo sugar pill with no active ingredient, and only ONE of them died

TED18 - 4

and if you want to READ the full corresPONDence and the excuses and the explanations given by the drug company, you can see that written up in this week's edition of plos Medicine,,, and **the most STAggering thing of all of this,, to ME, is** that not only is this a problem not only do we recognize that this is a problem, but we've had to suffer FAKE fixes we've had people pretend, that this is a problem that's been fixed, first of all we had trials registers and everybody said oh, it's okay we'll get everyone to register their trials, they'll post the protocol they'll say what they're going to do beFORE they do it, and then afterwards we'll be able to check and see if all the trials which have been conducted and completed, have been published, but people didn't bother to use those registers

TED18 - 5

now you might say well that's an exTREMely unusual eXAMple and I wouldn't want to be guilty of the same kind of cherry-picking and selective REferencing, that I'm accusing other people of, but it turns out that this phenomenon of publication bias has actually been very very well STUdied, so here is one example of how you approach it, **the classic model is,** you get a bunch of studies where you know that they've been conDUCTed and comPLEted and then you go and SEE, if they've been published anywhere, in the academic literature

TED19	Battling Bad Science	https://www.ted.com/talks/ben_goldacre_battling_ba d_science
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TED19 - 1

SO, ideally what you want to do is a trial everybody think they're familiar with the idea of a trial, trials,, are very OLD the first one was in the bible daniel one twelve, it's straightFORward take a bunch of people split them in half treat one group one way the other group the other way and then a little while later you phone them up and see, what happened to each of them,, so I'm going to tell you about, about one trial which is probably the most WELL-reported trial in the uk news media over the past Decade, and this is the trial of FISH oil pills, **the claim was** FISH oil pills, improve school performance and behaviour, in mainstream children, and they said we've done a trial, all the previous ones were positive and we know this one will be too, that should ring alarm bells if you, already know the answer to your trial you shouldn't be doing one either, e you've rigged it by deSIGN, o:r, you've got enough data so there's no need to randomize people anymore

[TED19 - 2](#)

and this is exactly what happened, with antipsychotic medication for schizophrenia,, twenty years ago, a new generation of antipsychotic drugs were brought in, and **the PROMise was,** that they would have fewer side effects, so people set about doing trials of the new drugs, against the old drugs, but they gave the old drugs in riDicuLously high doses twenty milligrams a day of haloperidol, and it's a foregone conclusion if you give a a drug at that high a DOSE, that it will have more side effects and your new drug will look better

[TED19 - 3](#)

so it's a little bit Difficult,, from THERE, to SPIN in some kind of positive conclusion,, but I would say THIS,,, I think, that sunlight, is the best disinfectant,, all of these things are happening in plain SIGHT, and they're all proTEcted by a force field of of of tediousness, and I think with all of the problems, in science **one of the best things that we can DO, is** to lift up the lid, finger around at the mechanics, and peer in

TED20	Why We're so Bad at Statistics	https://www.ted.com/talks/alan_smith_why_we_re_so_bad_at_statistics
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[TED20 - 1](#)

I think, you don't have to have tremMENdously high levels of numeracy to be insPIred by numbers and that should be the starting point to the journey ahead,, em, and **one of the ways in which we can beGIN that journey for me, i:s,** looking at statistics now I am the first to acknowledge that statistics, has got somewhat of an image problem

[TED20 - 2](#)

something like HOMEownership, is much more difficult to SEE and so we revert to our own, heuristics our own BIases about how many people we think, own their own HOMES, now, **the truth is,** when we published this quiz, the census data that it's based on was already a few years old, we've had, ONline applications that allow you to put in a post code and get statistics back for YEARS, so in some senses this was all a little bit, old and not necessarily new but I was interested to see,, what reAction we might get by GAMifying the data in the way that we have, by using animation and PLAYing, on the fact that people have their own preconceptions

[TED20 - 3](#)

e this url contains the words statistics gov and uk, which are three of people's LEAST favourite words in a url, and and **the amazing thing about this was** that the website came down,, at quarter to TEN at NIGHT, because people were actually, enGAging with this data of their own free will, using their own personal time

[TED20 - 4](#)

so, very often we talk about statistics as being the science of unCERTainty,, **my parting thought for today, is** actually statistics is the science, of US, and that's why we should be fascinated, by numbers thank you very much

[TED20 - 5](#)

so, here's the quiz,, **the layout of the quiz is,** you have your repeating icons on the left-hand side there and a map showing you the area we're asking you questions about, on the right-hand side, there are SEven questions, each question, there's a possible answer between zero and a HUNDred, and at the end of the quiz you get an overall SCORE, between zero and a HUNDred

TED21	How Juries are Fooled by Statistics	https://www.ted.com/talks/peter_donnelly_shows_how_stats_fool_juries
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TED21 - 1/2

e and there's another in-joke among statisticians and that's, how do you tell the introverted statistician, from the extroverted statistician?,, to which **the answer is,** the extroverted statistician's the one who looks at the Other person's shoes

TED21 - 4

so here is the theme for the first question I'm going to ask you, suppose we've got a a test for a disease which isn't, infallible but it's pretty good it gets it right ninety-nine percent of the time,, and I take one of YOU or I take someone off the STREET a:nd I test them for the disease in question let's suppose there's a test for HIV °the virus that causes AIDS°, and the test says the person has the disease,, what's the chance that they do?,, the test gets it right ninety-nine percent of the TIME, so: **a natural answer is,** ninety-nine percent,, that's wha you might think it's not the answer and it's not cause because it's only part of the story, it actually depends on how common or how RARE the disease is

TED21 - 5

put that another way, of all of them who test positive, less than one in a hundred,, actually have the disease,, so even though we think the test is accurate, **the important part of the story IS,** there's another bit of information we need

TED21 - 6/7

here's the key intuition,, what we have to DO, once we know the test is positive, is to weigh up the plausibility or the likelihood, of two competing explaNations,, each of those explanations has a likely bit and an unlikely bit,, **one explanation is** that the person doesn't have the disease, that's overwhelmingly likely if you pick someone at random,, but the test gets it WRONG, which is unlikely,, **the other explanation is** that the person DOES have the disease, that's unlikely but the test gets it RIGHT, which is likely, and the number we, end up with that number which is a little bit less than one in a hundred, is to do with how likely one of those explanations is relative to the other

TED21 - 8/9/10/11/12/13

nonetheless, that's how it was, presented, and at trial, nobody even argued,, that's the first e problem **the SEcond problem is** what does the number of one in seventy-three million MEAN?, so after sally clark was convicted you can imagine it made rather e:, a splash in the PRESS, one of the journalists from from e, one of Britain's more reputable newspapers, wrote that, what the expert had SAID, was the chance that she was Innocent, was one in seventy-three million,, now that's a logical error it's exactly the same logical error as the logical error of thinking that after the disease test which is ninety-nine percent accurate, the chance of having the disease is ninety-nine percent,, in the disEase example we had to,, bear in mind TWO things, **one of which was** the possibility that the test got it right or NOT, and **the Other one was** the chance a priori that the person had the disease or not, it's exactly the same in THIS context, there are two things involved, two parts to the the explanation we want to know how likely, or relatively how likely, two different explaNations are, **one of them is** that sally clark was Innocent, which is a priori overwhelmingly likely °most mothers don't kill their children°, and **the second part of the explanation i:s** that she suffered an incredibly unlikely eVENT, °not as unlikely as one in seventy-three million but nonetheless, rather unlikely°, **the other explanation is** that she was GUILTY, now we probably think a priori that's unlikely and

we certainly should think in the context of a criminal TRIAL, that that's unlikely because of the presumption of innocence,, and then, if she were trying to kill the children, she succeeded

TED22	Fighting with Non-Violence	https://www.ted.com/talks/scilla_elworthy_fighting_with_non_violence
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[TED22 - 1](#)

so, we all know the, three o'clock in the morning syndrome, when, something you've been worrying about wakes you up, I see a lot of people [laugh] a:nd for an hour you toss and turn it gets worse and worse and by four o'clock, you're PINNED to the PILLOW, by a monster this big, **the only thing to do, is** to get up make a cup of tea, and sit down with the fear, like a child beside you,,, you're the adult, the fear is the child and you talk, to the fear and you ask it,, what it wants what it NEEDS, how can this be, made ,better? how can the child feel stronger?

[TED22 - 2](#)

a:nd peace direct spotted quite early on,, that LOcal people in areas of VERY hot conflict, KNOW what to do they know best what to do So Peace Direct gets beHIND them to DO that, and **the kind of thing they're doing is** demobilizing militias, rebuilding economies, resettling refugees, e: even liberating child soldiers, and they have to risk their lives almost every DAY, to do this

[TED22 - 3](#)

and, I think that the us military is FI:nally, beginning to get this, e, e, up to now, **their counter-terrorism policy,, has been** to: kill insurgents at almost any cost, and if, civilians get in the WAY, that's written a:s collateral damage,, e and this is so infuriating a:nd, humiliating for the population of afghanistan, that it makes the recruitment for al-qaeda very easy, when people are so, disgusted by for example the burning of the coran

[TED22 - 4](#)

so what does work?, over time, I've collected about a half-dozen methods that DO work °of course there are many more°, that do work and that are effective, and **the FIRST is**, that the CHANge that has to take place, has to take, place, here, inside me, it's MY response my attitude to oppression,, that I've got control over and that I can do something about

TED23	The Smelly Mystery of Human Pheromone	https://www.ted.com/talks/tristram_wyatt_the_smelly_mystery_of_the_human_pheromone
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[TED23 - 1](#)

but sadly, these a:re fraudulent claims,, supported, by dodgy science,, **the problem is** that although there are many, good scientists working on what they THINK, are human PHERomones, and they're publishing in respectable journals, at the basis of this, despite very sophisticated exPERiments, there really is no good science behind it beCAUSE, it's based on a problem, which IS, nobody has systematically gone through all the odours that humans produce and there are THOUsands of molecules that we give off, we're mammals, we produce a lot of smell

TED23 - 2/3

so,,, the ancient greeks, knew, that, dogs sent invisible signals between each other, a female dog on HEAT, sent an invisible signal to male dogs for miles aROUND, and it wasn't a sound it was a smell you could take the smell FROM the female dog, and the dogs would chase the cloth, but **the problem, for everybody who, could see this eFFECT, was** that you couldn't identify the molecules you couldn't demonstrate it was chemical,, **the reason for that of course, is** that each of these animals produces tiny quantities, and in the case of the DOG, males dogs can smell it but we can't smell it

TED23 - 4

what about humans? well **the FIRST thing of course, is** that we're mammals, and mammals are smelly, as any dog owner can TELL you, we smell they smell but **the real reason we might think that humans have PHEromones, is** the change that occurs as we grow up,, the smell of a room of TEEnagers, is quite different, from the smell of a room of small CHildren,, what's changed? and of course it's puberty, along with the pubic hair and the hair in the armpits, new glands start to secrete in those places, and that's what's making the change in smell

TED23 - 5/5'

but there are some problems and this is why, I think people have not, looked for pheromones so effectively, in humans, there are indeed problems,, and **the first of the:se, is** perhaps surprising, it's all about culture, now moths don't learn a lot, about, what is good to smell, but humans do, and up to the age of about FOUR, any smell no matter how RANcid, is simply interesting, and I understand that **the major role of PAREnts, is** to stop kids putting their fingers in poo, because it's always something nice, to SMELL, but gradually we learn what's not good, and **one of the things we learn, at the same time as what is NOT good, is** what IS good

TED23 - 6

now all of these things are acquired tastes, but they form almost, a badge of identity, you're part of the in-group,,, **the second thing, i:s** the sense of smell, each of us has a unique, odour world in the sense that, what we smell ,we each smell a completely different world,, now smell was the hardest of the senses to crack, and the nobel prize awarded to richard axel and linda buck, was only awarded in two thousand and FOUR, for their discovery of how smell WORKS

TED23 - 7

now why is this important apart from being simply very interesting?, It's because, women VARY in the number of areolar glands that they HAVE, and there is a correlation between the ease with which babies start to SUCKLE, and the number of areolar glands she HAS, it appears that the more secretions she's GOT, the more likely the baby is to suckle QUICKly, if you're a MAmmal, **the most DANGerous time in LIFE, is** the first few hours after birth, you have to get that first, drink of milk a:nd if you don't get it, you won't survive, you'll be dead

TED24	Why would God Create a Tsunami	https://www.ted.com/talks/tom_honey_on_god_and_the_tsunami
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TED24 - 1

if the man in the photograph that appeared in the newspapers, holding the hand of his dead child, was standing in front of us NOW,, there are no words that we could say to him,, a verbal response would not be appropriate, **the only appropriate response, would be:** a compassionate silence, and some kind of practical help, it isn't a ti:me, for explanation or preaching or theology, it's a time for TEARS

TED24 - 2

this seems to ME, both, a deeply moving, and a conVINcing re-statement, of christian belief about god,, for hundreds of years, **the prevailing orthodoxy, the accepted truth, was** that god the father, the creator, is unchanging, and therefore by definition cannot feel pain, or sadness

TED24 - 3

the slaughter of millions in the trenches and in the death camps, have caused people to ask, where is god in all this? who is god in all this? and **the answer was**, god; is in this with us, or god doesn't deserve our allegiance anymore, if god is a bystander, observing but not involved, then god may well exist, but we don't want to know about hi.

TED25	Why we Need the Explorers	https://www.ted.com/talks/brian_cox_why_we_need_the_explorers
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TED25 - 1

we live in, difficult and challenging economic times of course and, **one of the, FIRST m victims of difficult economic times I think is** well public spending of any kind, but CERTainly in the firing line at the moment is public spending for science and parTicularly, curiosity-led science, and, exploration, so I want to try and convince you in about, fifteen minutes that that's a, a riDICulous and, LUDicrous thing to DO

TED25 - 2

so that's what we're arguing about e, **the first thing I want to say °and this is straight from wonders of the solar system° is** that our exploration of the solar system and the universe has shown us that it is indescribably, beautiful, this is a picture that actually, was sent back by the cassini space probe around Saturn after we'd finished filming, wonders of the solar system so it isn't in the series, it's of the moon enceladus

TED25 - 3

this is a very famous picture taken, actually on my first christmas eve, december twenty-fourth nineteen sixty-eight when I was, about, eight months old it was taken by apollo eight, as it went around the back of the moon, earthrise, from apollo eight, a famous picture many people have said that it's the picture that saved nineteen sixty-eight, which was a, a turbulent year, the student riots in paris the height of the vietnam war, **the reason, many people THINK that about this picture, and Al Gore has said it many times actually on the stage at TED, is** that this picture arguably was the beginning of the environmental movement because, for the first TIME, we saw our world not as a, well a solid immovable kind of indestructible place, but as a, very small FRAGile-looking world just hanging against the blackness of space

TED25 - 4

back in the, eighteen eighties eighteen nineties, e many, scientists many observers, looked at the light given off from atoms, and they saw strange pictures like this, what you're seeing when you put it through a prism, is that you heat hydrogen up and it doesn't just glow, like a like a white light, it just emits, light at particular colours a red one a light blue one some dark blue ones, now that LED, to an understanding of atomic structure, because **the way that's exPLAINED is that** atoms are a single nucleus, with electrons, going around them, and the electrons can only be in particular places, and when they jump up,, to the next place they can be, and fall back down again, they emit light at particular colours

TED25 - 5

there's one more I think wonderful twist to that tale, IN the wonders of the solar system, we kept emphasizing the laws of physics are universal it's one of the most incredible, things about the physics, and the understanding of nature that you get on earth, is you can transport it, not only to the planets but to the most distant stars and galaxies and, **one of the aSTONishing predictions of quantum mechanics, just by looking at the structure of atoms the same theory that describes transistor is** that there can be no stars in the universe that have reached the end of their life that are bigger than quite specifically fourteen times the mass of the sun, that's a Limit imposed on the mass of stars, you can work it out on a piece of paper in a laboratory, get a telescope swing it to the sky, and you find, that there are no, dead stars bigger than fourteen times the mass of the sun

TED26	On CERN's Supercollider	https://www.ted.com/talks/brian_cox_on_cern_s_supercollider
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TED26 - 1

so, you might be asking WHY? why create the conditions that were present less than a billionth of a second after the universe began? well particle physicists are nothing if not, ambitious and **the AIM of particle physics is** to understand what everything's made of, and how everything sticks together, and by everything I mean, of course me and you, the EARTH, the SUN, the hundred billion suns in our galaxy and the one hundred Billion galaxies in the observable universe, absolutely everything

TED26 - 2

one of the wonderful things actually I find is that we've discovered ANY of them when you realize how TINY they are, you know they're a step in size from the entire observable universe so one hundred Billion galaxies one hundred and thirty-seven Billion light years away, a step in size from that to monterey actually, is about the same as from monterey, to these things, absolutely exquisitely minute, and yet we've discovered, pretty much the full set

TED26 - 3/4/5

and and we we we came up with this analogy and it seemed to work well, what the Higgs does is it gives mass to the fundamental particles, okay, and **the picture is** that the whole universe, and that doesn't mean just space, it means me as well and inside you, the whole universe is full of something called a higgs field, higgs particles if you will, **the analogy is** that these people in a room, are the higgs particles, now when a particle moves through the universe, it can interACT with these higgs particles, but imagine someone who's not very popular moves through the room, then everyone ignores them, they can just pass through the room very quickly essentially at the speed of light, they're massless, and imagine someone incredibly important and POPular and inTELLigent [laugh] walks into the room,, they're crowded around they're surrounded by people and their passage through the room is impeded it's almost like they get HEAVY they get MASSive, and that's exactly the way the Higgs mechanism works **the picture is** that the electrons and the quarks in your body and in the universe that we see around us, are HEAVY, in a sense, and massive, because they're surrounded by Higgs particles they're interACTing with the Higgs field

TED27	What are the Most Important Moral Problems of our Time ?	https://www.ted.com/talks/will_macaskill_how_can_we_do_the_most_good_for_the_world
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TED27 - 1

now I'm going to give you a framework for thinking about this question and the framework is very simple,, a problem's higher priority,, the bigger, the more easily solvable, and the more neGLEcted it is, bigger is better, because we've got more to gain if we do solve the problem, more easily solvable is better because I can solve the problem with less TIME or money, and, most subtly,, more neglected is better because of diminishing returns, the more resources that have already been inVESTed into solving a problem, the harder it will BE, to make additional progress,, now **the key thing that I want to leave with YOU is** this framework, so that you can think for yourSELF what are the highest global priorities

TED27 - 2

but I and others in the effective altruism comMUNITY,, have converged on THREE moral issues, that WE believe, are unUsually important, score unUsually well in this framework, **first, is** global health,, THIS, is supersolvable, we have an aMAzing track record in global health, rates of death, for MEAsles, maLAria, diarrheal disease,, are down by over seventy percent,, and in nineteen eighty we eradicated smallpox,,, I estimate we thereby saved, over sixty million lives, that's more lives saved, than if we'd achieved world PEACE in that same time period

TED27 - 3

the second big priority is factory farming,, this is super neglected, there are fifty billion land Animals, used Every year for food, and the vast majority of them are factory FARmed, living in conditions of horrific suffering, they're probably among the worst-off creatures on this planet, and in many cases we could significantly improve their lives for just PENnies per animal,, yet this is HUGely neglected

TED27 - 4

now **the third area is** the one that I want to focus on the most, a:nd that's the category of EXistential risks, events like, a nuclear WAR or a global pandemic,,, that could PERmanently derail civilization, or Even lead to the exTINction of the human race

TED27 - 5

but let's keep using this framework, is this problem neglected?,, And I think **the answer is** yes,, and that's because problems that affect future generations, are often HUGely neglected,, WHY? Because, future people don't participate in markets today, THEY don't have a VOTE

TED28	The Nightmare Video of Children's Youtube and What's Wrong with the internet today	https://www.ted.com/talks/james_bridle_the_nightmare_videos_of_childrens_youtube_and_what_s_wrong_with_the_internet_today
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TED28 - 1

THIS is a surprise egg video,, alright it's basically a video of someone opening up loads of chocolate eggs, and showing the toys inside to the viewer,, that's IT that's all it does for seven long minutes, and I want you to notice, two: things about this, **first of all**, this video has THIRty Million VIEWS, alright, and **the other thing is** it comes from a channel that has sixty-three million subscribers, that has a total of eight BIlion views, and it's all just more videos, like THIS,, thirty million people watching a guy opening up these eggs, it sounds pretty WEIRD but if you SEARCH, for surprise eggs on YouTube, it'll tell you there's TEN, Million of these videos, and I think that's an undercount

TED28 - 2

if you keep searching, they're endless, there's millions and millions of these videos, in increasingly baroque combinations of BRANDS and materials and there's more and more of them being uploaded, every single day,, like this, this, is a strange world, right? but **the thing is**, it's not adults who are watching these videos it's KIDS, small small children,, these videos are like crack for little kids there's something about like the repetition, the constant little dopamine hit of the reveal, that completely hooks them in

TED28 - 3

and, e once again, this this impossibility of figuring out, who's making this stuff like is this a BOT? Is this a PERson? is this a TROLL? what does it mean that we can't tell the difference between these things anymore? and again, doesn't that uncertainty fee,l kind of familiar right now?,, so **the main way people get views on their videos °and remember views mean money°, is** that they STUFF the titles of these videos with these these popular terms so you take like surprise eggs and then you add paw patrol, easter egg or whatever these things are all of these words from other popular videos into your title, until you end up with this kind of meaningless MASH of language, that doesn't make sense to humans at all

TED28 - 4

your real audience for this stuff is is is SOFTtware it's the algorithms, it's the software that youtube USES to select, which videos are like other videos to make them POpular, to make them recommended, and that's why you end up with this kind of completely meaningless MASH, both of title and of content,, but **the thing is** you have to remember, there really ARE still people within this, algorithmically optimized system, people who are kind of increasingly forced to act out, these increasingly bizarre combinations of words, like a kind of desperate improvisation artist responding to the kind of combined screams of a million toddlers at once

TED28 - 5

this is where all those deeply WEI:RD keywords, come home to roost, you CROSS-breed the finger family video with some live-action superhero stuff, you add in some like weird trollish in-jokes or something, and suddenly you come to a very weird place indeed, e **the stuff that tends to upset parents is** the stuff that has kind of violent or sexual content, right? children's cartoons getting getting assaulted getting killed, e weird pranks that actually genuinely terrify children

TED28 - 6

but **the other thing the thing that really gets gets to me about this is** that, I'm not sure we even really understand how we got to this point, right? e, we've taken all of this, influence all of these things and munged them together in a way that no one really inTENDed, and yet this is also the way that we're building the enTIRE world

TED28 - 7/8

there's a couple of things I think that really seem to be, DRIVING this most fully on YouTube, and **the first of those is** advertising, right, which is the monetization of atTENTion,, e without any real e OTHER variables at work, any CARE for the people who are actually, developing this content, right? the centralization of the power the separation of those things,, e and I think however you feel about the use of advertising to kind of supPORT stuff, the sight of grown men in diapers rolling around in the sand, e in the hope that an algorithm that they don't really understand will give them MOney for it, suggests that this probably isn't the thing that we should be basing our society and culture upon, and the way in which we should be funding it,, and **the other thing that's the kind of the major driver of this** is automation, which is kind of the deployment of all of this technology as soon as it arrives without any kind of oversight, and then once it's out there,, kind of throwing up our hands and going, HEY, it's not us, it's the technology like, we're not we're not involved in it

TED28 - 9

the thought I think that brings those those two things together, really for me, the thing that that brings them together is agency, it's like how much do we really understand by agency I mean, how we know, how to act in our own best interests, right? which it's almost impossible to do in these systems that we don't really, fully understand,, inequality of power, always leads to violence, and we can see inside these systems that inequality of underSTANding does the same thing

TED28 - 10

if there's one thing we can do, to start to improve these systems, right? it's to make them more LEgible to the people who use them, so that all of us have a common understanding of what's actually going on here,, right?, **the thing though, I think most about these systems,, is** that well, this isn't as I hope I've explained really about youtube, it's about everything, these issues of accountability and agency, of oPAcity and complexity, of the violence, and exploitation that inherently results from the kind of concentration of power in a few hands, these are much much larger issues, right

TED29	What Happens When a City Runs out of Room for its Dead	https://www.ted.com/talks/alison_killing_what_happens_when_a_city_runs_out_of_room_for_its_dead
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TED29 - 1

so, I have an overlooked but potentially lucrative investment opportunity for you,, over the past ten years in the uk, the return on burial plots has outperformed the uk property market by a ratio of around three to one,, there are private cemeteries being set up with plots for sale to investors and they start at around three thousand and nine hundred pounds, and they're projected to achieve about forty percent growth, and **the BIGgest advantage is** that, this is a market with, conTInuous demand

TED29 - 2

so, in the summer I did my first exhiBItion on death and architecture i:n VENice, a:nd °it was called death in Venice°, and, because death is a subject that many of us find quite uncomfortable to talk about, the exhibition was designed to be quite PLAYful, so that people would Literally engage with it, so **one of our exhibits was** an interactive map of london which showed just how much of the:, real estate in the city is given over to DEATH, and as you wave your hand across the map the name of the piece of real estate the, building or the cemetery is reVEAled

TED29 - 3

so they came up with a few solutions they were like well, maybe we can reuse those graves after fifty years, or maybe we can bury people like four DEEP so that four people can be buried in the same PLOT, and we can make more efficient use of the LAND that way, and in that way hopefully london will still have space to bury people in the near FUTURE, but traditionally cemeteries haven't been taken care of by the local authority, in fact **the surprising thing is** that, there's no legal obligation on ANYone in the uk to provide burial space, traditionally it's been done by, private and religious organizations, like churches and MOSques and SYNagogues, but, there's also occasionally been a for-profit group who has wanted to get in on the act, and you know they look at the small size of a burial plot and that high cost, and it looks like there's SERious money to be made, so actually if you want to go out and start your own cemetery, you kind of can

TED29 - 4

but, I mean just to come back to this idea of making profit from cemeteries, like it's kind of ludicrous, right? like, **the thing is** that the high cost of those burial plots is actually very misleading, they look like they're expensive but that cost reflects the fact that, you need to maintain the burial plot, like someone has to cut the grass for the next fifty YEARS, and that means it's very difficult to make money from cemeteries, and it's the reason that normally they're run by the council or by a not-for-profit group, but anyway the council granted these people permission, and they're now trying to build their CEmetery

TED29 - 5

but I mean like,, really like who does this, right?,,, well, °you know° if you're an aristocratic family and you have a large estate then there's a chance that you'll have a mausoLEum on it and you'll bury your FAmily there, but, **the really weird thing, is** that, you don't need to have a piece of land of a certain size before you're allowed to start BUrying people on it, and so that means that technically, this applies to like the back garden of your house in the suburbs

TED29 - 6

so, like what if you wanted to try this yourself at home? WELL, there's a few councils that have guidance on their website which can help you, so, **the first thing that they tell you is** that you need to have a certificate of BUrial before you can go ahead, you're not allowed to just murder people and put them under the patio

TED30	Our Place in the Cosmos	https://www.ted.com/talks/david_deutsch_on_our_place_in_the_cosmos?
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TED30 - 1

we've been told to: go out on a limb and e say something surprising, so I'll try and do that but, I want to START with two things that, everyone, already knows, and **the first one in fact is** something that, has been known for MOST of, recorded history and that is that,,, the planet earth or the solar system or our environment or whatever is, uNiquely suited, to sustain, our evoLUtion or creation as it used to be thought e and our present existence and and most important our future surVival

[TED30 - 2/3](#)

nowadays this idea has a dramatic name, spaceship earth, and **the idea there is** that OUTside the spaceship the universe is imPLAcably hostile and INside is, all we have, all we depend on, and we only get the one chance if we mess up our spaceship, we've got nowhere else to go, now **the SEcond thing that e everyone already knows is** that, CONtrary to what was believed fo:r most of human history, human beings, are NOT in fact, the hub, of existence, and stephen hawking famously said we're just, a chemical scum o:n the surface of a typical planet that's in orbit around a typical star which is, on the outskirts of a typical galaxy and and so on

[TED30 - 4/5](#)

how does the solar system, in e our environment, in the form of us, acQUIRE this special relationship with the rest of the universe? well one thing that's e true about stephen hawking's remark °I mean it is true° but it's the wrong emphasis, **one thing that's true about it is** that, it it doesn't it doesn't do it with any special, physics there's no special dispensation no miracles involved, it does it simply with three things that we have here in aBUNdance, **one of them is** MATter, because well the the the growth of knowledge is a form of information processing, information processing is computation, computation requires a computer, there's no known way of making a computer without matter

[TED30 - 6](#)

now I don't think that, probaBility, is the right category to discuss this issue in but I do agree with him about this, we CAN survive, and we CAN fail to survive,, but, it depends not on CHANCE, but on whether we create the relevant knowledge in time, a the danger is not at all unprecedented, species go extinct ALL the time, civilizations END, the overwhelming majority of all species and all civilizations that have ever existed, are now history, and if WE want to be the exception to that, then logically, **our only hope, is** to make use of the ONE feature, that distinguishes OUR species and OUR civilization, from ALL the others namely our special relationship with the laws of physics

[TED30 - 7/8](#)

so let me now e apply this to to a current controversy e not because I want to advocate any particular solution but just to illustrate the KIND of thing I mean, and **the controversy** is global warming,, now, I'm a physicist but I'm not the right kind of physicist in in, in regard to global warming I'm just a layman, and, **the RAtional thing for a layman to do is** to take SERiously, the prevailing SCIENtific theory, and according to that theory, it's already too LATE, to avoid a disaster beCAUSE, if it's true that our best option at the moment is to prevent c o two emissions with something like the kyoto protocol °with its constraints on economic activity and its, eNORMous cost of hundreds of billions of dollars or whatever it is°, then that is already, a disaster, by any reasonable measure

3. Débat parlementaire

PAR	MPs Debate and Vote on the Withdrawal Agreement with the European Union	https://www.parliament.uk/business/news/2019/march/mps-debate-and-vote-on-the-withdrawal-agreement-with-the-european-union/
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PAR - 1

I don't intend to take long and I want to set out clearly the choice before the house today **the minimum necessary therefore,, the minimum necessary, in order to secure this right that is ours as a matter of law, is** that the withdrawal agreement, is approved,, all negotiated exits, from the European Union, will require this withdrawal agreement, to have been approved

PAR - 2/2'

mister speaker I WILL take interventions I don't reFUse it I was just asking if he'd be patient but let me deal with that point now the government WAS considering, e asking that the indicative votes process continue this morning so that we could have brought a motion this afternoon or this evening [brouhaha] **the the the question was** yes yes yes That's that's no I wait that's exactly what the thinking was that's exactly what the thinking was there is NO desire on the part of this government to interfere with the process that the House is currently underGOing on the CONTrary, the motion acknowledges it and notes it and I will come to it, if I may, in due course / Yeah/ Mr speaker **the minimum necessary, to secure our legal RIGHT to an extension therefore, is** that this withdrawal agreement is approved, and ALL negotiated exits, that any Member of this House might conJECTure or dream of, will require this withdrawal agreement

PAR - 3'

and so the government, will give consideration, as to precisely how, the full package will be approved, with the political declaration but **one option for the house, will be** to introduce the eu withdrawal e e implementation bill agreement bill before this house and if this agreement is approved today, the government WILL introduce the Bill, within the next, few, days

PAR - 3

I understand the right honourable gentleman's point I say straight away straight away **the answer to that is** this is the only right we have to an extension,, if if we move into next week without securing it, then we take the take the chance that of those 27 leaders they will be vetoed

PAR - 4/5

now the right honourable gentleman asks me, about european parliamentary elections,, plainly **the stated position of the european union, is** that we would have to ORganise and STAND in those elections,, if we went beyond may the twenty-THIRD,, some lawyers of course disaGREE with that stated position, and say that it would not be necessary, but that IS the stated position of the Union,, **the point however I would say to the honourable right honourable gentleman, is** that we have the opportunity here to embrace CERtainty

PAR - 6/7/8

this withdrawal agreement everybody knows the right honourable gentleman knows is an essential prerequisite of our departure from the european union, that may be why he does not want to vote for it, but and the official labour position, **the offIcial labour position, is** that they DO not disagree or object to a CLAUse or ARTicle of the withdrawal agreement I have to say, the country the country the country looking on must judge this,, they do not object / Yeah/ they have not emitted a PEEP of disagreement, with a single clause or article of that agreement,

and **their position today, is** that they intend to vote it down, what kind of CYnicism, is that mister speaker ? So I say to thee I say to thee **The opportunity now, is** for us to embrace the certain legal right for an extension, to may the twenty-second that will give us the opportunity of giving certainty to the country, and allowing the process of reconsideration of the political declaration to take place

PAR - 9

I I I I have to say I I know that my right honourable friend is a very distinguished and able lawyer but I never knew, that he had a crystal ball, **the fact of the matter is the fact of the matter is** it is the european union has NOT agreed to grant any longer extension, it will be subject to the veto of any of the twenty-seven, and it would CERTainly be subject to clear signs, in this house, that there was a stable majority for an alternative solution, and a stable way of delivering it

PAR - 10

I must make progress but I will give way particularly to the honourable gentlemen, so I say to I say to the house **the reason for the motion today, the reason for the FORM of the motion today, is** that it enables the House to secure this legal right it is, it is the case that the government makes that this agreement is required in any EVENT that members on the other side do not dispute a requirement the requirement that there is for the agreement to be passed, and therefore we invite the house to secure the,, certainty of the extension to continue with the process of the political declaration, reconsiderations, to enable us by the twenty-second of may, to have RATified the domestic implementing legislation and to conclude discussions on the political on the political on the political declaration

PAR - 11

the attorney's argument is basically that this is a way of guaranteeing certainty for business in the country, however,, IF today,'s motion is carried there will be no certainty, /correct/, the government will not be able to ratify the treaty will it? I think he's he he accepts that we he they won't be able to ratify there will still have to be, the proper, m motion brought forward to this house and the other including both sides, there will still have to be a Bill which will be much contentiously disputed there is NO certainty if anything, today throws MORE /yeah/ uncertainty into the process

PAR - 12

e e plai plainly, that would be open, e open to the House to do, m **the problem with it I say to the honourable gentleman is** that we, would have lost the legal right to the exTENSION, therefore we would be applying at the discretion of the union to GRANT it to us

PAR - 13

the government recognises that process and will in due course take decisions as to how, and if they can implement anything that might emerge from that but **the whole point of the political declaration, is** that it CANnot be negotiated with the european union NOW, and **what the government is saying** and there was some amendments done I think by the honourable Member for, stoke central what the government is saying in connection with the next stage of the political declaration, AND its negotiation with the european union, is that there will be NEW mechanisms and new procedures, so that the house can be properly consulted, and have a PARTicular role, in the manner in which the political declaration once it is finalised within this house,, will be negotiated in that second stage

PAR - 14/15/16

the fact is, the withdrawal agreement would be accepted by the european union that's the first point, **the second point is** it sorts out the implementation period and the money and CRUcially guarantees citizens' rights for MY constituents, /YEAH/ eu nationals and brits abroad, which part of those factors does he actually disagree with? **The answer is** none /YEAH/

PAR - 17

I say to my honourable friend we've been putting the idea of a comprehensive customs union for months and months and months, **the reason it has not been properly considered, is** because of the prime minister nothing to do with the opposition,, we let me be clear today mister speaker, we will never mortgage all our futures on the outcome of a conservative leadership party contest over which most members have no control over at all and would have to sit back and watch

PAR - 18 /19

the **further point**, and this is why I asked the attorney general, about the question of whether or not there will be a withdrawal and implementation bill, EVEN if the withdrawal agreement goes down this EVening, and **the short answer to that is**, I got no answer, just as I received no answer from the Prime Minister to several questions I put to HER, about whether the Attorney General, had given legal advice in accordance with the ministerial CODE, **one of the characteristics of this debate, is** that when you ask difficult questions, you end to get no answer, that is not good enough, in terms of the accountability of the government to this House

PAR - 20

I I I understand my honourable Friend's point, but I have to also point out to him, that under ey law, the constitutional orders of the member states on several cases van gend en loos, costa and other one of similar kind it is made abundantly clear that the european COUrt actually itself asserts superiority over the internal constitutional orders of the country in question, and **the reality is**, that there is a conflict demonstrated by the e competence competence case emuLation to the question he's raised and I've raised, because it is as I have stated, the german constitutional court ,will not countenance, direct,, contradiction with it its own lawmaking

PAR - 21

I of course want to leave the European Union but **the problem with this withdrawal agreement is** it does NOT, I assert, represent brexit in the terms in which the repeal of the 1972 act, which as I was saying just now, is an act of parliament not only of, great britain but also, with northern ireland, therefore the constitutional status of northern ireland is at STAKE, with resp as as with respect to the question of the northern ireland backstop, and there is NO doubt about that

PAR - 22

and what happened if I may say so mister speaker is very simply stated, on the twenty-sixth of june last year, we passed the withdrawal, e withdrawal act two thousand and eighteen, section one says the european communities act nineteen seventy-two, is repealed on exit day, exit day operates in LOCKstep with whatever exit day, turns out to BE, however, **the reality is**, that beCAUSE of the saving provisions, and under article four, the capacity of the court, to disapply enactments, it is just conceivable in fact I believe it is highly potentially POSSible, that there will be issues of interpretation which could arise

PAR - 23

and I go further, and say that, the e change of gear, between twenty-sixth of June when the withdrawal act received, royal assent, and the sixth of July and then the introduction of the white paper, after the chequers proposals, demonstrated to ME bad FAith, because it MUST have been pre-planned, while that withdrawal Bill was going through with which I thoroughly agreed with and gave any conceivable, assistance to the Government to get it through and **the reality is** that because, it was produced only ten days later, you only have to ask the question how can they write an eighty page white paper without planning it, some months in adVANce

PAR - 24

I say this to some of my honourable friends, who themselves, may have changed their minds, in respect of whether or not they would approve this withdrawal agreement, I will simply say this, that I have heard all of them, good friends of mine, repeatedly objecting, to the fact that this backstop is there, we have had the distinguished attorney general and the distinguished, solicitor general, opining on this subject, and we have had some very interesting outcomes, BUT,, **the reality is**, that the: e northern ireland backstop, is a MASSive impediment, in fact it is an inSUperable impediment to agreeing this withdrawal agreement

PAR - 25/25'

S1 : Does he accept, **the risk today of defeating this, withdrawal agreement today, is** that we will stay in the european communities act, forever?

S2 : No, because, there is no suggestion that I've heard, that the repeal of the nineteen seventy-two act would be itself the repeal of that act would be repealed, from either side of the house there is no question about that and **the reality is**, that because that is, an act of parliament and set in STONE, I do not believe that that will happen and furtherMORE, that the consequences of our moving on to the next phases, will reinforce that, and that is my view

PAR - 26

I I I do I I know that, and I have heard it, but so the dup themselves I simply say, that before giving way to the right hon gentleman, **the reality is** that they sit here in this house, having been elected, themselves, on a proposition, this issue mister speaker is all about democratic deCIision making, it is about the HOnesty with which we approach it, it is to do with the TRUST that is inHErent in our taking the instructions of the British people in accordance with the sovereign sovereign referendum Act

PAR - 27

and the democratic unionist party has never preTENDed that it represents the majority or everyone in northern ireland but it represents, MORE people than anybody ELSE, **the fact of the matter is** there's no party in this house that is in government in Scotland Wales or here, that represents a majority, we have the same proportion of the votes, as the snp in scotland

PAR - 28/29

the first thing I would say is the snp, does not speak for scotland / yeah/ **the SEcond thing is**, and I think the honourable gentleman needs to reflect on this, everyone on this side of the house with the exception of a few,, people who are standing up for their constituents are on the same SIDE and he should remember that his enTIRE speech so far has attacked the labour party, which tells you all we need to know about the nationalists

PAR - 30/31

yes, of of of of of course I do mister speaker, because businesses in Scotland, know **that the best way to protect their interests, is** to stay in the European Union, every economic analysis of any substance that has been published, has shown us that we're going to be poorer,, and I say to those that voted, for brexit in scotland of course we understand, why you voted the way that you do and of course we will listen, to your concerns, but **our obligation, is** to speak with everyone, and to have that open conversation and dialogue as to what is in the best interests of the people of scotland how do we grow prosperity in scotland how do we deliver a fairer scotland? and that is why, independence offers the best, option for all of us

PAR - 33

first of all this motion as the: my right hon and learned friend said, is NOT,, the motion we have already voted on, this is a different motion, and I, well I'm not gonna make any excuse about it it is a different motion now the other side agreed that, so how they can laugh I don't know **the reality is** today, I AM, going to support the government in this,,, /yeah / I am gonna do it for a very simple reason, that I think nothing huge has changed in the nature of the bill, that is likely to come ahead of us or even within the withdrawal agreement, but I do think what has changed is the balance, of RIsks, and I think as poliTiCians not LAWyers as poliTiCians we need to apprise ourselves of what that balance amounts to and therefore to what degree, e we owe ourselves to make those decisions

PAR - 34

the second area that some have said, is that actually it's alright because an extension e doesn't really matter because we will be able to stay IN, the eu, and will be able to: MAKE those negotiations and GET those changes and we ARE in control, because we will have votes and an ability to TAKE that control all I say to them, I voted against Maastricht e twenty: six years ago, and I have always maintained that we have never had real control and in 40 years, if we have had so much control, why are we now trying to get out of a European Union that has extended its power and its competence year in, year out?

PAR - 35/36/36'

would he forgive me for one second I want to make a point and I'll give way but once because as mister speaker says we want to try and keep this short, so **my point about this is** I genuinely believe, that **the way to stand up for the 174 million, is now** to get to the bill, and I said to my: e my honourable Friend who is not here in his place from Stone, who I reVERe as I said, in constitutional law,, here he is, /laugh / e I say to my honourable friend, bill needs to get to the Bill and **the reason for that is** we will then look and see, what of the attorney general's e , issues that he raised and how he protects us is IN the bill what can we enSURE is in this Bill? And we can then still make a judgment about whether it represents what WE believe is the way in which we should leave

PAR - 37/38/39/39'

my simple, point that I simply want to make to him is absolutely this has been a TRAI:L, of deceit on both sides of the house by different governments, but **the judgment I'm taking today is** what is the balance of risks,/yeah/ I believe that **the one saving grace, of this so far, is** that we DO: repeal the nineteen seventy-two european communities act and that mea:ns, that we will have left the european union, and **the point I make about that is** why that is the single issue I would take, is as my honourable friend the member for stone said earlier on, we need get to the bill and figure out, how that is protected, is that the default mechanism?

PAR - 40

I had the honour of serving on the public accounts with her just when I entered the house, she is talking about risk, knowing what she does through the public accounts committee, does she not recognise **the greatest risk is** NOT passing this withdrawal agreement not having that certainty on data not having that certainty on customs not having that certainty for the united kingdom for them to move forward

PAR - 41

the honourable gentleman served honourably on the public accounts committee and he was an assiduous member of that committee, and HE knows and I know, that yes we need certainty, but to jump into the dark, to pass this today, without any of that detail is too much of a leap of faith and **my point is very clearly,** that the government could have been SHARing and discussing a lot more, if we remember back to the two thousand and seventeen general election the discourse that we were having then, was remarkably different from the discourse we are having TWO, years later and it is for that reason that I now think we need to have a DEALt hat goes BACK to the people because we are now THREE years on from the original referendum and people are now seeing that there is no certainty in what is being proposed

PAR - 42

we can get in, **one of the realities of course if we were to propose and pass a Bill for a second referendum is** this House would have to vote on at least five separate occasions in order to frame that legislation so I'm not gonna talk about such hypothetical deal deep situations, but we need no deal to be ruled out

PAR - 43/44/45

now **the SEcond, e reason why I should vote against it, is** one of the consequences of passing this motion, because **the aim °and the attorney general was frank about it° , is** to gain an extension to the twenty-second of may rather than the twelfth of april the twelfth by satisfying the requirement of article ONE, of the european council decision of twenty SECOND of march, which stated, in the event that the withdrawal agreement IS approved by the house of commons by the twenty-ninth of march two thousand and nineteen at the latest, the period provided for, in article fifty-three, fifty bracket three, of the treaty of european union is extended until the twenty-second of may two thousand and nineteen,, now **the problem, and my intervention, e e: with the attorney general, was trying to address that, is** that by the time if we, DID pass this motion and got that extension, we get to the week beginning the twentieth of may, IF at that moment we have not yet resolved,, the question of our future e,, political and economic relationship and the uk decided that it NEEDED to apply, for a further extension, I would argue that the eu is almost certain to reFUse, any, such, extension, on the grounds, that we have failed to take part, in the european elections

PAR - 46

it is, and for that reason aLONE it deserves to be defeated now, my **last point I want to make is** this, this Bill is displacement activity on the part of the government because the government should be turning its effort and attention,, to the real issue, which is our future relationship

PAR - 47

the issue that we have to consider today, is whether the offer that the attorney general and the government has made to this House, goes any way towards resolving this problem, and in my view, it cannot and does not

PAR - 48

and the problems that the government has had, started to multiply when it became clear that that was not happening, whatever the motivation of different members of this house in rejECting the government's deal, **the TRUTH is** that it is KERnel with the fact that we did not have ANY ability to make that assessment, that's why the government lost twice on section thirteen motions, and in truth I suspect even if a section 13 motion could be brought BACK, it would again be rejected, for the same reasons

PAR - 49

I have to say speaking personally, that if I cannot vote on a clean motion to approve a deal, I will be constrained on the passage of the eu withdrawal act, to be much FREER in my opposition, **the truth is** that it is, I think, most unlikely that between now and the twenty-second of may, we have any possibility, of reaching that sort of consensus,, which is why I have been of the view for some time that we ought to seek to extend article fifty FURther if we couldn't, come to an agreement by the twelfth of april, and I believe in just a moment and I believe I believe that our european union partners, have understood that and would be willing for us to do it

PAR - 50

I understand the the the dilemma which many of my honourable friends on the other side, of the the chamber are facing on this, but **the dilemma for, me as a unionist,, is** that I cannot, and we as a party cannot, put our hand to an agreement, which would have northern ireland treated Differently, which could have that difference between northern ireland and the rest of the united kingdom, impPOsed on us forever by the eu, and which breaches and which breaches and which breaches the principle of consent, that in the in the belfast agreement, because it would change irrevocably the constitutional position of northern ireland, where we would have our laws made in brussels, instead of london

PAR - 51

m let me let me just make a let me just make a second point here, and **the the the SECOND reason, why I will be opposing this agreement, is** because I believe that it betrays, the, wishes of the vast majority of people who voted to leave the eu, and I know that the honourable lady for edinburgh south west who is not at her place, has described those who voted to leave and who are standing outside today protesting as a MOB

PAR - 52/53

no, I'm not gonna give way anymore m I have a few minutes a few minutes remaining, **the, the the THIRD reason why I'll be voting against this, is** because the f the the **one of the fundamental reasons, that we were opposed to this, is** that it leaves us in a situation, where we will be PART of the e without having any SAY, subject to eu, rules during the implementation period and any extension,, subject to the european court of justice,, and only have the ability to break out of it, IF and WHEN the eu decide it has screwed as much out of us in negotiations as it possibly can, and THAT is not, the kind of agreement that I believe ANYone should sign up

PAR - 54

he makes an interesting point in his own way but **the point that I am making is** that on monday, the house will need to choose if the GOVERNMENT cannot do it, the house must do it, and we must remember that in spite of some of the things that are said inCLUding from the government bench, the the government is accountable to Parliament and not the other way round and on monday, as I said NO two colleagues agree enTIREly in what they say in this house, m but m there will be a result on monday in my view, I'm so sorry I haven't got the time to give way there will be a result on monday in my view the government must honour that

PAR - 55/56

let us not forget mister speaker that the house, voted for this process against the government's, wishes and **one thing we can all say with great certainty, is** since MID-november last year, nothing has CHANGed, neither e has it changed in the withdrawal agreement nor has it changed in the political declaration **the only thing that has changed is** the attorney general's, legal advice and if you ask a lawyer for the conclusion that you want and pay that lawyer for that conclusion you are likely to get the conclusion that you are looking for

PAR - 57

well I absolutely agree with my honourable friend's intervention and of course, **the purpose of this motion and also the debate that's we're having having today and the comment that he's just made and I've been making is** that it means once the withdrawal agreement is aGReEd, there is no turning back, as the uk will be bound into an international agreement with the EU, which MEANS as my honourable friend and many other honourable and right honourable members know, NO chance to change the withdrawal agreement, NO chance to change the northern ireland backstop, NO chance, to put safeguards in place to protect our democracy from the harmful, laws that will be imposed on us, NO chance to freely negotiate new trade deals with the rest of the world, and NO chance to change in any meaningful way the legislation coming forward to implement the withdrawal agreement seeking to amend the legislation, would risk the uk being in breach of our international obligations

PAR - 58

and finally, is it any wonder that trust in british politics, is broken when, we listen to, some of the most EXTRAordinary contributions today and rightly so mister speaker? But ultimately **the fact of the matter is** as we've heard today, many of the pledges we have made to our electorate are now being, moved away from

PAR - 59

I am grateful to the honourable member for giving way, I understand that she is she e I understand mister speaker that she is making the argument eloquently, that people did not necessarily vote for a tick-box of what they of what sort of leave they would want but does she accept the basic principle that seventeen point four million people voted to leave, and **the best way we can leave, in an orderly way is** to vote for the deal?

PAR - 60/61

I I, I absolutely agree with the principle that seventeen point peo fo four million people voted to leave the european union,, which is exactly WHY, **the most democratic way, of going forward is** to ask the people in two thousand and nineteen once we KNOW, what the choices are and the **the REAL, lie of the leave campaign to me was,** that it was NOT a clear choice that was what was the betrayal of the people

PAR - 62

there is, actually and I'm coming to that, a very easy way of this government, to get a deal through,, to agree to put it to the people, the Government has unfortunately made their position clear it doesn't support a people's vote, but **the great strength of the indicative vote process two d two days ago, is** that it could test a sentiment in the House and it started, of combining of choices, comBining choices is how the indicative vote process CAN move towards a majority view

PAR - 63

the indicative vote e m on tuesday people's vote achieved the highest numbers of votes, **so the question for today is,** why the prime minister, doesn't offer a people's vote on HER deal to get it over the line?, I have a strong suspicion that if the house was to vote for on a combined motion, to vote for the prime minister's deal subject to a people's vote, the prime minister, would vote against her own deal

PAR - 64

the vote on its own terms does have significant legal and practical implications, first it is necessary to, satisfy the eu council decision, on twenty second march, to avoid and indeed prevent the government returning to the EU to seek an even, LONGer, extension,, I regard that as essential, **the second implication of the motion, by virtue of that, is** to avoid the uk holding european elections in MAY, and I regard THAT as absolutely essential, to avoid the very DANGEROUS and corrosive effect on public trust in our democracy

PAR - 65/66

I always listen very attentively, to my honourable Friend, he: posits the dilemma, I think, absolutely correctly, and this is a finely balanced judgment, of RISK, **the problem I have is** I cannot countenance, an even longer extension,, and I cannot countenance holding European elections, in may, and **the THIRD implication, is** that a duly constituted, third meaningful vote under section thirteen, will have to return to this House for a vote preSUMably, under Second Reading vote on the withdrawal and implementation Bill

PAR - 67

if we don't get those CHOICES RIGHT, it will mean DEALing with issues such as housing, the future of our public services will be even HARDer if not impossible to achieve,, and **the grim truth, is** that if this withdrawal agreement is get through, today, we will be taking, a HUGE leap into the unknown, worse still,, none of the fundamental questions and choices will be MADE by members on this side of the house they will be made by the winner of the next Tory leadership election

PAR - 69

and let us be absolutely clear no matter how it is dressed up by the government, this is a vote, e on the prime minister's withdrawal agreement, and I think it is a bad deal, a very very bad deal and I think **part of the reason, we've arrived at this POINT, in which the House cannot support the deal,, is** because, the negotiating team, saw Brexit as a problem to be SOLved rather than an opportunity to be, seized UPON, and furthermore, they never convinced the EU that we were prepared to walk away

[PAR - 70](#)

but mister speaker, the other the second reason I won't I am sorry I am going to continue for a little bit, **the second reason , I'm going to be voting against the agreement tonight, is** the is because inDEFinite nature of the backstop, I FULLy agree with those who say that there is a need for compromise, I do not like the transition, arrangement, but I c I can hold my NOSE to it, because in a sense it is no worse than being in the eu

[PAR - 71](#)

so mister speaker in conclusion,, article fifty we triggered,, **the legal default position of that triggering and we passed by a three hundred and eighty-four, maJOrity, is** that we would LEAVE, with or without a DEAL,, monday's motions are going to be addressing, the CENTral issue of whether we leave on wto terms if we CANnot, pass the: Prime Minister's deal today, and I'd encourage the house to give it consideration

[PAR - 72](#)

but nothing HAS changed and therefore I won't,, **the truth is** that we are being asked to approve this agreement, to buy the government another FORTY days what a dreadful forty days it would be,, forty days of increasing frustration for the british people who are wondering why the steeple bells, are not pealing out this evening

[PAR - 73](#)

to deal with that bûrach, we have a government SO dysfunctional SO bereft of talent and SO lacking in trust, the prime minister has given up trying to appoint ministers, **its only saving grace is** it's opposed by an official loyal opposition, that seems incapable of doing anything that might actually help and seems completely at odds with itself

[PAR - 74](#)

and my honourable friend from cheltenham put it very well earlier, when he said, **the key point, is** simplicity it is about a fiNANcial settlement cause this is a country that honours those financial settlements, it's about CIizens' rights which matter greatly to me and to my constituents, and it's about the implemenTation period that business was crystal clear it needs to deliver that safe exit

[PAR - 75](#)

I am gonna vote against this today because I think it's a pretty the minister looks depressed and upset like I have let him down terribly, but **the truth but the truth is** this is a ludicrous attempt at a body swerve by the government, and this house decided in THIS parliamentary session, what was the proper process for proceeding, first of all, a meaningful vote on the withdrawal agreement and the political declaration all in one that's what this house decided, and enacted in this session

[PAR - 76/77](#)

and two things are different, about how we are doing this today, **the first, is** the separation, of the political declaration from the withdrawal agreement, and **the second, is** the starting gun being fired on a tory leadership contest

[PAR - 78](#)

there is no certainty, in either direction today it is a balance of risks as has often been said on both sides of the House, but **my FEAR, and my GREAtest fear, is** that we lose Brexit entirely, if we vote this down today, and that is exactly, what could happen

[PAR - 80/81](#)

so coming to my right on my honourable friend's point, I believe **the alternative, is** to risk a long delay, in article fifty after april the twelfth, this means crucially, that means that we will fight European elections, fighting european elections, almost three YEARS after the british people voted, to leave the european union, and then in my **my prediction is**, that we will finally go for a LONG e exTENSion of article fifty, during which time everyone will say that we must revoke it

[PAR - 82/83/84/85](#)

britain can leave the european union in in one of two ways, we could choose to reject eu regulation altogether, **the downside would be** severe damage to our eCONomy highlighted by, honda's Swindon plant closure cancellation of nissan models in sunderland, recent votes have showed the House rightly recognises that danger of no-deal and isn't willing to go down that road, **the alTErnative, is to** protect the economy stay close to europe, but **the problem with that, is** having to apply eu rules but no longer having any say, over what the rules are, THAT is the brexit choice, move away from the eu take the economic hit, or stay close and reduce the economic hit, but have no say over the rules, now mister speaker **one of the reasons we're in the problem we're in, today is** we do not know, the prime minister's choice we don't know which of those, two she favours

[PAR - 86](#)

and just yesterday, we learned that more children, are in poverty, and the SCOURGE of pensioner, poverty, is rising again, **the job of government is** to make people's lives BETTER, and this Government has FAILED

[PAR - 87/87/68](#)

we have the horror of Northern Ireland, **the whole basis, of getting the unionist population to vote for the Belfast agreement** was the principle of consent,, there was an extraordinarily successful campaign by, lord lord trimble, it was an aMAZing effort to get, unionists to vote for it, **the basis was** TRUST, that the status of northern ireland could not be changed, and yet we are going to have something horrible called uk i, which is actually in breach of the acts of union of eighteen o one so trust and, I am sorry, others want to speak, this is about trust and democracy and, **my last key point the absolute key point,, is** that what we are seeing today DOES not deliver, it does not deliver on the referendum, it does NOT deliver, on those manifesto commitments it does it does not deliver on the promises made throughout all those debates

[PAR - 88](#)

mister speaker, I know that numerous mps particularly on the conservative side of the house, are finding this a very difficult vote, and a very difficult decision to MAKE, so perhaps I could briefly explain, how I have gone about trying to reach, my difficult conclusion, on what I must do,, **the Flrst thing I asked myself is** what do my voters in wokingham want me to do?, because where they have, a VERY strong majority for a certain conCLUsion, I would need an extremely good reason, to disagree with them

[PAR - 89](#)

the second thing I asked myself, is what have I and my party promised my electors in Wokingham and the wider electorate in the United Kingdom that we serve? And there again it is very clear, that I and the national manifesto in two thousand and seventeen which then gave me my mandate, said that we would see Brexit through, that it would take two years after the formal notification had been received, that no deal was better than a bad deal, but of course we would do our best to get a really good deal which was our preference

[PAR - 90](#)

now, Mr Speaker, **the final point I want to make, is** this, I think for me I find myself in a minority in the House of Commons, I think the House of Commons overstates the dangers of no deal I don't believe there is such a thing as no deal, I think were we to leave with what is called no deal, there will be a whole series of smaller deals, some of them temporary some of them more permanent, and some stops, so myself I do not worry, as much as many of my colleagues do about the dangers of no deal

[PAR - 91](#)

my honourable friend is absolutely right, there is something else of course I think people in the House now have to, ask themselves, whether or not they have faith in our democracy, and also in the ability to govern ourselves, and **the fact of the matter is** we all should be, and rightly doing everything possible, to actually keep that referendum mandate and keep us basically, sticking to the fundamental commitments that brought every single member of parliament to this place, here today, and the very clear commitment, because members of parliament who are committed to keeping our promises to the people, are now being forced to make choices, hard and difficult choices, between the risk of this motion, taking a risk with this motion, or the risk of giving, others supporters in the House who simply don't want to deliver Brexit, or deliver those commitments that we stood on, to get us here in the first place

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and I say, to the prime minister, YOU can get your deal over the line by combining it, with a people's vote I hope very much, that, moving on, into next week's indicative votes, we can all agree to combine some of our options, as a compromise but **the ultimate thing has to be**, if we are doing that here if we are changing things in this place, that change needs to be put back to the people thank you

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today, the prime minister is asking us, to take a punt on the withdrawal agreement and hope the best for a political declaration it's not good enough the two are linked, and nothing Mr Speaker demonstrates that linkage more, than the backstop, **the reality is**, the political declaration is incredibly vague, and there are in it I quote a spectrum of possible outcomes, nothing is even close to being resolved, that makes it even more likely that the UK would fall into the backstop, which creates regulatory divergence between Northern Ireland, and the rest of the UK, as the honourable member for East Antrim said

Annexe 4 : Occurrences analysées en contexte

1. Structures projectives et structuration du discours : transcription élargie de la communication TED1¹

I want to suggest *four ways* we can transform the paradigm of how we think about refugees, all four ways, have one thing in common, they're all ways in which we take the opportunities of globalization, mobility and markets, and update, the way we think about the refugee issue.

The first one I want to think about is the idea of enabling environments, and it starts from a very basic recognition, that refugees are human beings like everyone else, but they're just in extraordinary circumstances,, together with my colleagues in Oxford, we've embarked on a research project in Uganda, looking at the economic lives, of refugees, We chose Uganda not because it's representative of all host countries, it's not, It's exceptional. Unlike most host countries around the world, what Uganda has done, is give refugees economic opportunity, it gives them the right to work it gives them freedom of movement, and the results of that are extraordinary, both for refugees and the host community, in the capital city, Kampala, we found that 21 percent of refugees, own a business that employs other people, and 40 percent of those employees, are nationals of the host country, in other words, refugees are making jobs for citizens of the host country, even in the camps, we found extraordinary examples of vibrant, flourishing and entrepreneurial businesses,

for example, in a settlement called Nakivale, we found examples of Congolese refugees, running digital music exchange businesses, we found a Rwandan who runs a business that's available, to allow the youth to play computer games on recycled games consoles and recycled televisions, against the odds of extreme constraint, refugees are innovating, and the gentleman you see before you is a Congolese guy called Demou-Kay, Demou-Kay arrived in the settlement with very little, but he wanted to be a filmmaker, so with friends and colleagues, he started a community radio station, he rented a video camera, and he's now making films, He made two documentary films, with and for our team, and he's making a successful business, out of very little, it's those kinds of examples that should guide our response to refugees, rather than seeing refugees as inevitably dependent upon humanitarian assistance, we need to provide them with opportunities for human flourishing,

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Yes, clothes blankets shelter food are all important in the emergency phase, but we need to also, look beyond that, we need to provide opportunities to connectivity electricity education the right to work access to capital and banking, all the ways in which we take for granted that we are plugged in to the global economy can and should, apply to refugees.

the second idea I want to discuss is economic zones, Unfortunately, not every host country in the world takes the approach Uganda has taken, most host countries don't open up their economies to refugees in the same way, but there are still pragmatic alternative options, that we can use

Last April I travelled to Jordan with my colleague the development economist Paul Collier, and we brainstormed an idea while we were there, with the international community and the government, an idea to bring jobs to Syrians while supporting Jordan's national development strategy the idea, is for an economic zone, one in which we could potentially integrate the employment of refugees alongside the employment of Jordanian host nationals, and just 15 minutes away from the Zaatari refugee camp, home to 83,000 refugees, is an existing economic zone called the King Hussein Bin Talal Development Area, the government has spent over a hundred million dollars, connecting it to the electricity grid, connecting it to the road network, but it lacked two things, access to labor and inward investment, so what if refugees were able to work there, rather than being stuck in camps, able to support their families and develop skills through vocational training, before they go back to Syria? We recognized that that could benefit Jordan, whose development strategy requires it to make the leap as a middle-income country to manufacturing it could benefit refugees, but it could also contribute to the postconflict reconstruction of Syria, by recognizing that we need to incubate refugees as the best source of eventually, rebuilding Syria.

We published the idea in the journal Foreign Affairs, King Abdullah has picked up on the idea, it was announced at the London Syria Conference two weeks ago and a pilot will begin in the summer.

The third idea, that I want to put to you is preference matching between states and refugees to lead to the kinds of happy outcomes you see here in the selfie featuring Angela Merkel and a Syrian refugee, What we rarely do, is ask refugees what they want, where they want to go, but I'd argue we can do that and still make everyone better off, The economist Alvin Roth has developed the idea of matching markets, ways in which, the preference ranking of the parties shapes an eventual match., my colleagues Will Jones and Alex Teytelboym, have explored ways in which that idea could be applied to refugees, to ask refugees to rank their preferred destinations, but also allow states to rank the types of refugees they want on skills criteria or language criteria and allow those to match, now of course you'd need to build in quotas on things like diversity and vulnerability, but it's a way of increasing the possibilities of matching, the matching idea has been successfully used to match, for instance students with university places, to match kidney donors with patients, and it underlies the kind of algorithms that exist on dating websites so why not apply that to give refugees greater choice?

It could also be used at the national level, where one of the great challenges we face, is to persuade local communities to accept refugees, and at the moment, in my country, for instance, we often send engineers to rural areas, and farmers to the cities, which makes no sense at all, so matching markets offer a potential way to bring those preferences together and listen to the needs and demands of the populations that host, and the refugees themselves,

The fourth idea I want to put to you is of humanitarian visas, much of the tragedy and chaos we've seen in Europe was entirely avoidable, it stems from a fundamental contradiction in Europe's asylum policy, which is the following, that in order to seek asylum in Europe, you have to arrive spontaneously, by embarking on those dangerous journeys that I described, but why should those journeys be necessary, in an era of the budget airline and modern consular capabilities? They're completely unnecessary journeys, and last year, they led to the deaths of over 3,000 people on Europe's borders and within European territory.

2. Structures projectives et structuration du discours au sein de la communication

TED11

2.1. Transcription²

So, this is what physics is like -- there's all these kinds of hieroglyphics, these are to do with waves and particles. That is an artist's impression of two black holes colliding, which makes it look worth watching, to be honest. I'm glad I didn't have to write the risk assessment for whatever was going on there. **The point is:** this is the image of physics, right? It's weird and difficult, done by slightly strange people dressed in a slightly strange way. It's inaccessible, it's somewhere else and fundamentally, why should I care?

And **the problem with that** is that I'm a physicist, and I study this. This -- this is my job, right? I study the interface between the atmosphere and the ocean. The atmosphere is massive, the ocean is massive, and the thin layer that joins them together is really important, because that's where things go from one huge reservoir to the other. You can see that the sea surface -- that was me who took this video -- the average height of those waves by the way, was 10 meters. So this is definitely physics happening here -- there's lots of things -- this is definitely physics. And yet it's not included in our cultural perception of physics, and that bothers me.

So what is included in our cultural perception of physics? Because I'm a physicist, there has to be a graph, right? That's allowed. We've got time along the bottom here, from very fast things there, to things that take a long time over here. Small things at the bottom, big things up there. So, our current cultural image of physics looks like this. There's quantum mechanics down in that corner, it's very small, it's very weird, it happens very quickly, and it's a long way down in the general ... on the scale of anything that matters for everyday life. And then there's cosmology, which is up there; very large, very far away, also very weird. And if you go to some places like black holes in the beginning of the universe, we know that these are frontiers in physics, right? There's lots of work being done to discover new physics in these places.

But **the thing is**, you will notice there's a very large gap in the middle. And in that gap, there are many things. There are planets and toasts and volcanoes and clouds and clarinets and bubbles and dolphins and all sorts of things that make up our everyday life. And these are also run by physics, you'd be surprised -- there is physics in the middle, it's just that nobody talks about it. And **the thing about all of these** is that they all run on a relatively small number of physical laws, things like Newton's laws of motion, thermodynamics, some rotational dynamics. The physics in the middle applies over a huge range, from very, very small things to very, very big things. You have to try very hard to get outside of this. And there is also a frontier in research physics here, it's just that nobody talks about it. This is the world of the complex. When these laws work together, they bring about the beautiful, messy, complex world we live in.

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Fundamentally, this is the bit that really matters to me on an everyday basis. And this is the bit that we don't talk about. There's plenty of physics research going on here. But because it doesn't involve pointing at stars, people for some reason think it's not that. Now, **the cool thing about this is** that there are so many things in this middle bit, all following the same physical laws, that we can see those laws at work almost all the time around us.

I've got a little video here. So **the game is**, one of these eggs is raw and one of them has been boiled. I want you to tell me which one is which. Which one's raw?

2.2. Traitement sous Praat des occurrences

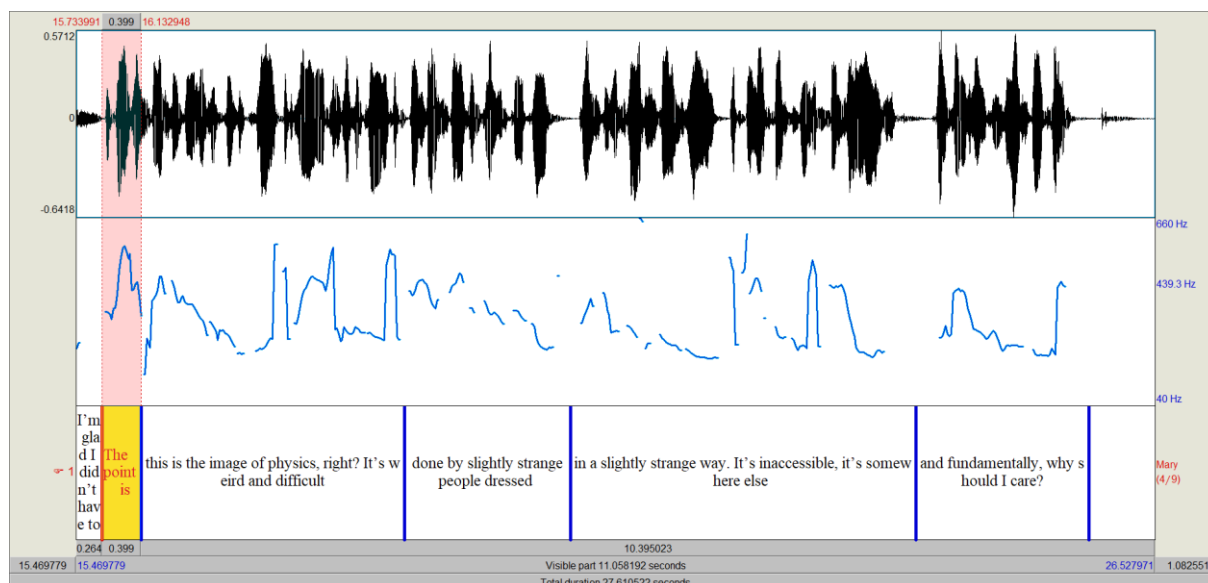


Figure 1 : Traitement sous Praat de l'occurrence TED11 - 1

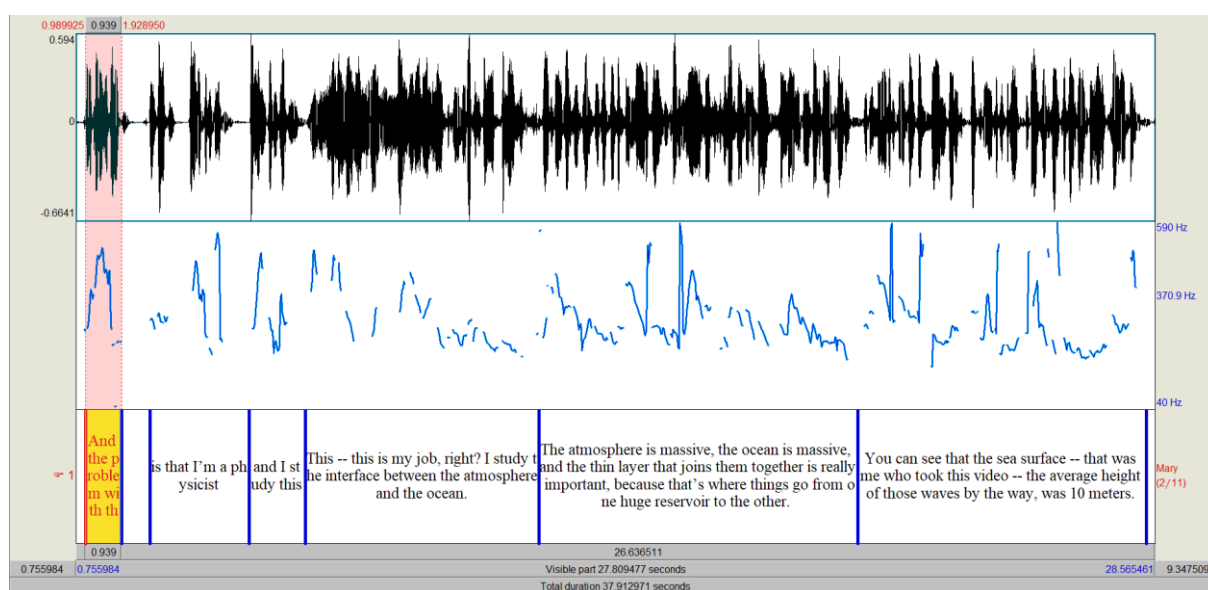


Figure 2 : Traitement sous Praat de l'occurrence TED11 - 2

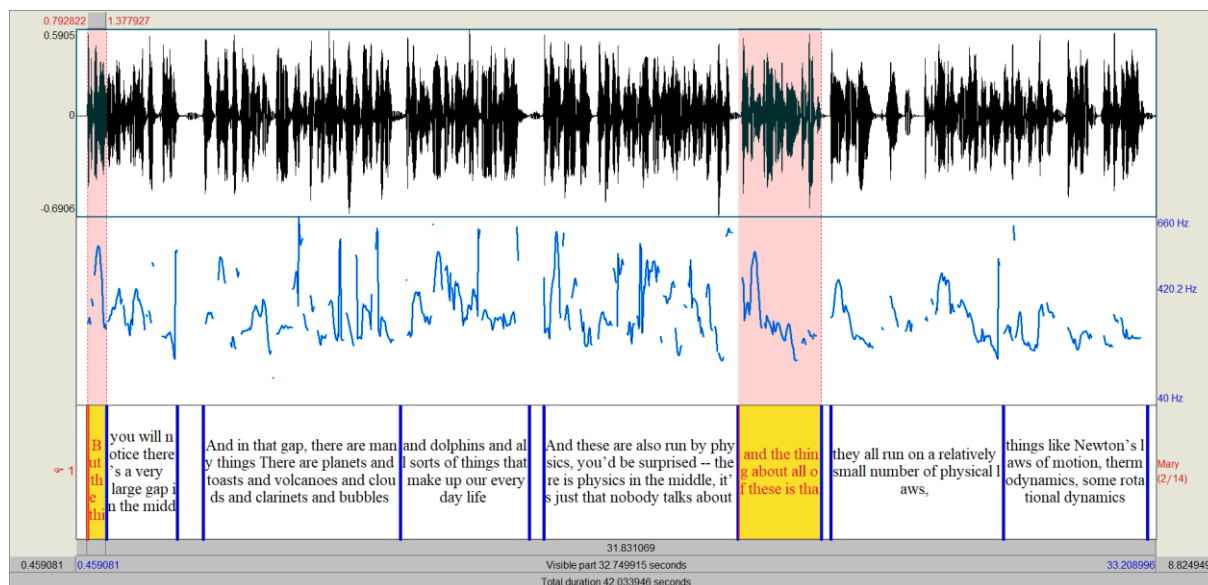


Figure 3 : Traitement sous Praat de l'occurrence TED11 - 3/4

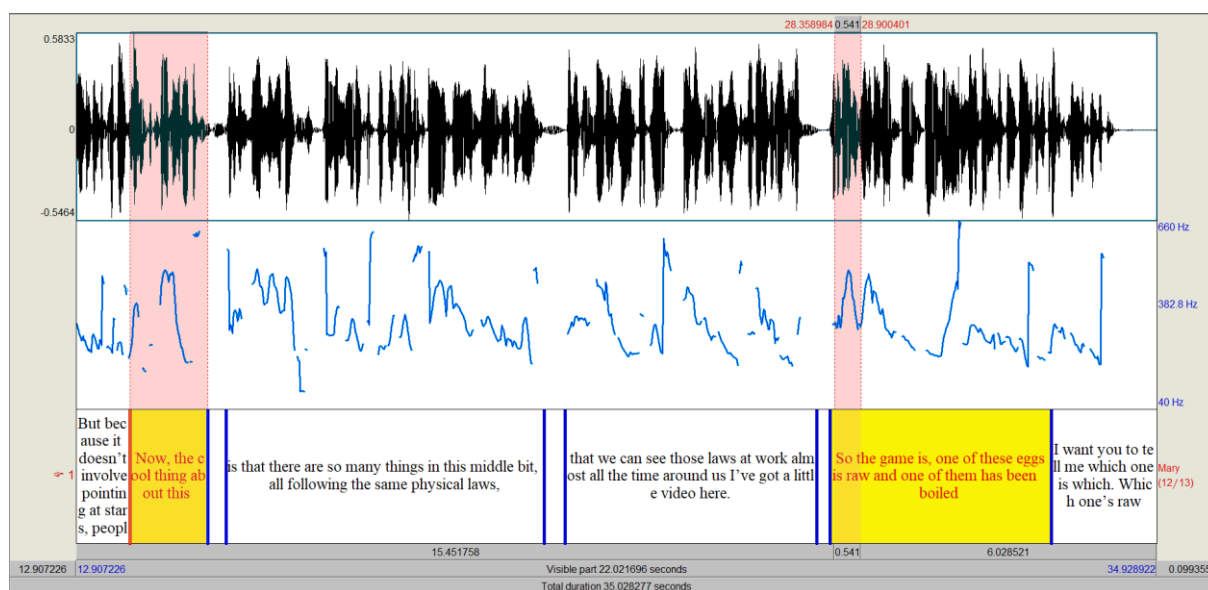


Figure 4 : Traitement sous Praat de l'exemple TED11 - 5/6

Annexe 5 : Recueil des données quantitatives

du corpus

L'annexe 4 regroupe l'ensemble des relevés quantitatifs qui ont été effectués dans le cadre de la thèse sous forme de tableaux synthétiques. Les fréquences sont indiquées en pourcentage ainsi qu'en fréquence brute, hormis les tableaux 3 et 4, pour lesquels la fréquence brute nous semble plus pertinente.

1. Données quantitatives relatives au chapitre 5

Nature de la projection syntaxique	Syntagme nominal	Gérondif	Syntagme verbal	Syntagme prépositionnel	Syntagme adverbial
Fréquence (%)	19	2	2	0	1
Fréquence brute	108	13	11	3	4

Proposition subordonnée nominale en <i>wh</i> -	Proposition subordonnée nominale en <i>that</i>	Proposition introduite par <i>because</i>	Proposition finie / complétive en Ø	Proposition interrogative	Proposition Infinitive
1	36	2	24	4	9
5	205	12	134	22	52

Tableau 1 : Fréquence (%) en fonction de la nature de la projection syntaxique

Type de projection syntaxique	Projection micro-syntaxique	Projection macro-syntaxique	Projection ambiguë
Fréquence %	48,5	25,5	24
Fréquence brute	276	146	137

Tableau 2 : Fréquence (%) en fonction des différents types de projection syntaxique

Forme de la copule	Ø	is is	has been	have been	has to be	should be	is gonna be	are	is	was	will be	would be
Fréquence brute	7	5	2	1	1	1	1	2	491	53	1	5

Tableau 3 : Fréquence brute en fonction de la forme de la copule be

Type de projection sémantique	Non-neutre	Factuelle	Métalinguistique	Circonstancielle	Événementielle	Mentale
Fréquence (%)	11,25	37,25	16,5	5	10	20
Fréquence brute	64	212	94	28	57	114

Tableau 4 : Fréquence en fonction de la nature de la projection sémantique

Nombre d'UI	2 UI			1 UI
Schéma intonatif	Rise	Fall rise	Fall	Fall
Fréquence (%)	4	29	50	17
Fréquence brute	23	165	284	97

Tableau 5 : Fréquence en fonction du schéma intonatif du segment projectif

Nom noyau	Fréq. brute	Nom noyau	Fréq. brute	Nom noyau	Fréq. brute	Nom noyau	Fréq. brute
thing	162	fact	2	measurement	1	oddity	1
reason	43	fear	2	memory	1	opportunity	1
point	25	implication	2	message	1	part	1
problem	26	lie	3	misunderstanding	1	pitch	1
way	23	marker	2	moreal issue	1	policy	1
idea	22	minimum	2	motivation	1	policy prescription	1
answer	18	object	2	myth	1	possibility	1
question	15	people	2	news	1	price	1
reality	12	person	2	niche	1	priority	1
truth	10	picture	2	obligation	1	project	1
explanation	6	prediction	2	deal	1	promise	1
fact	6	reaction	2	definition	1	punishment	1
conclusion	5	response	2	difference	1	purpose	1
danger	5	risk	2	recommendation	1	dilemma	1
position	5	saving grace	2	display	1	rule	1
aim	4	side	2	downside	1	shock	1
area	4	task	2	effect	1	sign	1
irony	4	test	2	enemy	1	solution	1
option	4	theme	2	example	1	statistics	1
change	4	trouble	2	exhibits	1	stereotype	1
consensus	3	advantage	1	experience	1	story	1
issue	3	advice	1	feature	1	strength	1
method	3	analogy	1	findings	1	stuff	1
model	3	antidote	1	game	1	suspicion	1
place	3	approach	1	hope	1	tactic	1
role	3	aspect	1	hypothesis	1	talk	1
thought	3	bit	1	illustration	1	theory	1
pronom	2	bottom line	1	impetus	1	thinking	1
alternative	2	brief	1	ism	1	time	1
argument	2	call	1	understanding	1	job	1
barriers	2	case	1	line	1	version	1
basis	2	clue	1	controversy	1	victim	1
challenge	2	comment	1	country	1	words	1
characteristic	2	complaint	1	coup	1	work	1
claim	2	concern	1	data	1	layout	1
exception	2						

Tableau 6 : Fréquence brute des noms noyaux au sein du segment projectif

2. Données quantitatives relatives au chapitre 6

Schéma intonatif	1 UI	2 UI frontière avant be	2 UI frontière après <i>be</i>	2UI sans be
Fréquence (%)	17	42,5	39	1,5
Fréquence brute	97	242	222	8

Tableau 7 : Fréquence (%) des occurrences en fonction du découpage en UI

	micro		macro		ambigu	
1 UI (fréquence %)	27%	76%	8%	11,5%	9%	12,5%
1 UI (fréquence brute)	74		11		12	
2 UI pause avant be (%)	61%	69,5%	20%	12%	33%	18,5%
2 UI pause avant be (brute)	168		29		45	
2UI pause après be (%)	13%	16%	72%	48%	58%	36%
2UI pause après be (brute)	36		106		80	

Tableau 8 : Fréquence (%) du schéma intonatif en fonction du type de projection syntaxique et fréquence du type de projection syntaxique en fonction du schéma intonatif³

³ Pour rappel : les cases grisées doivent se lire verticalement tandis que les cases non-grisées se lisent horizontalement.

	The weird thing is		The thing is		The problem with it is		The amazing thing about this is		The thing I want to say is		The real coup they pulled off was	
1 UI (%)	19,5	20	21,5	34	14	10	13	7,5	13,5	13	17,5	10
1 UI (brute)	19		33		10		7		13		10	
2 UI pause avant <i>be</i> (%)	39	16	20,5	13	48	14	58	13	62	25	56	13
2 UI pause avant <i>be</i> (brute)	39		32		34		32		62		32	
2 UI pause après <i>be</i> (%)	41,5	18	58	41, 5	38	12	29	7	24,5	11	26,5	7
2 UI pause après <i>be</i> (brute)	40		90		27		16		25		16	

Tableau 9 : Fréquence (%) du schéma intonatif en fonction du schéma lexico-grammatical et fréquence du schéma lexico-grammatical en fonction du schéma intonatif

	factuelle		mentale		métalinguistique		événementielle	
1 UI (%)	11	24	18	22	19,5	18,5	21,5	12
1 UI (brute)	23		21		18		12	
2 UI pause avant be (%)	40,5	35	52	24	24,5	9	48,5	11
2 UI pause avant be (brute)	84		58		22		27	
2 UI pause après be (%)	48,5	46	30	15	56	23,5	30	7,5
2 UI pause après be (brute)	103		34		52		17	

	circonstancielle		Non-neutre	
1 UI (%)	23,5	27	17,5	6
1 UI (brute)	6		17	
2 UI pause avant be (%)	56,5	57	14,5	6,5
2 UI pause avant be (brute)	16		35	
2 UI pause après be (%)	20	16	5	3
2 UI pause après be (brute)	6		10	

Tableau 10 : Fréquence du schéma intonatif en fonction de la projection sémantique et fréquence de la projection sémantique en fonction du schéma intonatif

3. Données quantitatives relatives au chapitre 7

Type de projection sémantique	Non-neutre	factuelle	Méta-linguistique	mentale	circonstancielle	événementielle
Fréquence (%)	31,25	23,5	34	33	21	21
Fréquence (brute)	20	45	32	38	8	12

Tableau 11 : Fréquence (%) du schéma FALL-RISE en fonction du type de projection sémantique

Schéma lexico-grammatical	The weird thing is	The thing is	The problem with it is	The amazing thing about this is	The thing I want to say is	The real coup they pulled off was	The thing to do
Fréquence (%)	30	28,5	22,5	36,5	31,5	28	43
Fréquence (brute)	29	45	16	20	31	16	3

Tableau 12 : Fréquence (%) du schéma FALL-RISE en fonction du schéma lexico-grammatical

Genre de l'oral	Podcast radiophonique	Débat parlementaire	Communication scientifique
Fréquence (%)	13,5	28	34,5
Fréquence (brute)	20	27	113

Tableau 13 : Fréquence (%) du schéma FALL-RISE en fonction du genre de l'oral

4. Données quantitatives relatives au chapitre 8

Marqueur	Ø	and	so	but	I think	now	because	I mean
Fréquence brute	255	151	45	45	24	21	9	6

Marqueur	well	I suppose	I guess	I believe	right	you know	like	however
Fréquence brute	6	3	3	2	1	1	1	1

Tableau 14 : Fréquence brute des marqueurs qui précèdent la structure projective

5. Données quantitatives relatives au chapitre 10

Type de positionnement énonciatif	Données globales	Epistémique	Évaluatif	Radical
Communication scientifique (%)	32,8	4,9	25,15	3,98
Communication scientifique (brute)	107	16	82	13
podcast radiophonique (%)	31,97	4,76	19,72	7,48
Podcast radiophonique (brute)	48	8	29	11
Débat parlementaire (%)	48,95	21,87	19,79	7,29
Débat parlementaire (brute)	47	21	19	7

Tableau 15 : Fréquence (%) des positionnements énonciatifs modaux en fonction du genre de l'oral

Attribution de la source énonciative	Données globales	Au locuteur	A une personne tierce
Débat parlementaire (%)	33,33	23,95	9,375
Débat parlementaire (brute)	32	23	9
Podcast radiophonique (%)	14,97	14,28	0,68
Podcast radiophonique (brute)	22	21	1
Communication scientifique (%)	17,48	12,26	5,21
Communication scientifique (brute)	57	40	17

Tableau 16 : Fréquence (%) du phénomène d'attribution de la source énonciative en fonction du genre de l'oral