

## Urgency Codebook

This codebook contains additional information on the dictionaries used to code urgency dimensions and topics.

### *Dimensions of Urgency*

Urgency in political discourses is an expression of how necessary and/or how soon an action should be undertaken or completed. This is measured along four dimensions, two related to necessity and two related to timing. The first two dimensions, *degree of intensity* and *degree of commitment*, relate to the necessity of taking the action, while the next two dimensions, *frequency of action* and *timing of action*, relate to the timing in which action is taken. Our dictionary includes terms in each of these dimensions. The terms included in each of these dimensions of urgency were first adapted from established lexicon dictionaries for scoring text polarity such as the [Semantic Orientation Calculator \(SO-CAL\)](#). These were complemented by other terms inductively found in texts during pre-testing.

The terms in the dictionaries for each dimension were first scored on a scale between 0 and 1, with 1 being the maximum value obtainable and contributing the most to the urgency score of the sentence. Words that would have a score of 0 (e.g. never or unnecessary) are not included in the list, for example ‘never’ is not included in the frequency of action dictionary and ‘unnecessary’ is not included in the degree of commitment dictionary, since adding these words would not have an effect on the final urgency score of the sentence.

Sentences will obtain a higher urgency score by having more terms that are scored 1 or having more terms that have scores in each of the four dimensions. For instance, the sentence ‘We will provide more subsidies to families in need.’ will have a score of 1.5 (will = 1 + more = 0.5) while the sentence ‘We must take action today to solve the imminent and global problem of climate change.’ will have a higher score of 5 (must = 1 + today = 1 + solve = 1 + imminent = 1 + global = 1). These scores are weighted by the number of terms in the dimension and then by default normalised by the number of terms in the text, but there is also the option for users to return scores without normalisation.

The scores of the terms in the dictionary were then validated through a survey that asks respondents to make paired and triple comparisons of the terms in each dimension. A ranking of the terms is generated from the survey results, and the estimated coefficients are then used to scale the scores of the terms. That is, these original scores were verified and scaled according to the survey results. The tables below show the original and scaled scores of the terms in the dictionary.

## 1. Degree of intensity

word	original score	scaled score	word	original score	scaled score
enormous	1	0.97	totally	0.6	0.51
huge	1	0.97	entirely	0.6	0.51
tremendous	1	0.97	most	0.6	0.5
immense	1	0.97	very	0.6	0.49
vast	1	0.97	insufficient	0.6	0.48
ultimate	1	0.97	above	0.6	0.45
maximum	1	0.95	ambitious(ly)	0.6	0.45
utterly	1	0.89	substantial(ly)	0.6	0.45
exceptional	1	0.89	lots	0.6	0.45
extraordinary	1	0.89	much	0.6	0.45
desperately	1	0.86	far	0.6	0.45
extremely	1	0.86	realistic(ally)	0.6	0.42
deeply	1	0.86	plenty	0.5	0.37
strongly	1	0.86	moderate(ly)	0.6	0.37
vigorously	1	0.86	more	0.6	0.37
intensive(ly)	1	0.85	clear(ly)	0.4	0.29
urgent(ly)	1	0.84	quite	0.4	0.28
high(ly)	1	0.82	almost	0.4	0.27
pervasive	1	0.81	least	0.4	0.27
prevalent	1	0.81	less	0.4	0.27
extra	1	0.81	somewhat	0.4	0.24
determined	1	0.8	enough	0.2	0.2
especially	1	0.8	sufficient	0.2	0.2
firmly	1	0.78	limited	0.2	0.15
extensive(ly)	1	0.78	small	0.2	0.15
wide(ly)	1	0.78	near(ly)	0.2	0.14
widespread	1	0.78	modest	0.2	0.14
unmatched	1	0.78	some	0.2	0.14

definite(ly)	1	0.78	rather	0.2	0.14
really	1	0.76	low	0.2	0.14
certain(ly)	1	0.74	barely	0.2	0.14
surely	1	0.74	reasonable/ reasonably	0.2	0.13
simply	1	0.74	adequate(ly)	0.2	0.13
remarkable/ remarkably	1	0.73	average	0.2	0.12
intense(ly)	1	0.7	slightly	0.2	0.12
global(ly)	1	0.65	weakly	0.2	0.12
everywhere	1	0.61	slight	0.2	0.12
practically	1	0.59	minimal	0.2	0.11
large	0.6	0.58	minimum	0.2	0.11
completely	0.6	0.54	little	0.2	0.1
fully	0.6	0.51			

## 2. Degree of commitment

word	original score	scaled score	word	original score	scaled score
imperative	1	1	let's/ let us	0.5	0.44
must	1	1	optimal	0.5	0.44
serious	1	0.97	should	0.5	0.42
essential	1	0.97	shall	0.5	0.42
severe	1	0.95	timely	0.5	0.42
need to	1	0.93	want to	0.5	0.42
require	1	0.93	plan to	0.5	0.41
obligatory	1	0.93	better	0.5	0.4
oblige	1	0.93	able	0.5	0.4
best	1	0.91	tenable	0.5	0.4
necessary	1	0.9	doable	0.5	0.4
necessarily	1	0.9	willing	0.5	0.38
important(ly)	1	0.87	opportune	0.5	0.38

momentous	1	0.87	obvious	0.5	0.38
significant	1	0.81	cautious	0.5	0.38
quintessential	0.8	0.77	careful(ly)	0.5	0.38
is time to	0.8	0.75	good	0.5	0.36
unavoidable/ unavoidably	0.8	0.75	preferable/ preferably	0.5	0.36
inevitable/ inevitably	0.8	0.75	ideal(ly)	0.5	0.36
inexorable/ inexorably	0.8	0.75	useful	0.5	0.34
have to	0.8	0.75	useable	0.5	0.34
major	1	0.74	great	0.5	0.33
going to	0.8	0.71	would	0.5	0.32
urge	0.8	0.71	can	0.5	0.32
ready to	0.8	0.7	option(al)	0.5	0.31
eminent	0.8	0.7	marginal	0.5	0.31
prominent(ly)	0.8	0.7	option	0.5	0.31
preeminent	0.8	0.7	might	0.5	0.3
pre-eminent	0.8	0.7	could	0.5	0.27
invaluable	0.8	0.67	possible/ possibly	0.5	0.25
worthy	0.8	0.67	may	0.5	0.25
valuable	0.8	0.67	plausible/ plausibly	0.5	0.25
will	0.8	0.66	trivial	0.2	0.14
promise to	0.7	0.57	ambiguous	0.2	0.13
commit to	0.7	0.57	vague	0.2	0.13
intend to	0.7	0.57	ambivalent	0.2	0.13
relevant(ly)	0.7	0.53	insignificant	0.2	0.12

### 3. Frequency of action

word	original score	scaled score	word	original score	scaled score
always	1	1	often	0.7	0.54
by the minute	1	1	monthly/ every month	0.7	0.53
every minute	1	1	incrementally	0.6	0.49
hourly/ every hour	1	1	progressive(ly)	0.6	0.49
by the hour	1	1	quarterly	0.6	0.45
persistent(ly)	1	1	gradual(ly)	0.6	0.41
relentless(ly)	1	0.98	annually	0.5	0.31
unrelentingly	1	0.98	yearly/ every year	0.5	0.31
daily/ everyday	1	0.97	sometimes	0.5	0.27
nightly/every night	1	0.97	intermittent(ly)	0.3	0.23
constant(ly)	1	0.93	sporadic(ally)	0.3	0.19
incessant(ly)	1	0.93	occasional(ly)	0.3	0.17
interminable/ interminably	1	0.93	irregular(ly)	0.3	0.15
weekly/ every week	0.9	0.79	seldom	0.2	0.1
fortnightly	0.8	0.7	infrequent(ly)	0.1	0.06
steady/ steadily	0.8	0.65	unusual	0.05	0.03
generally	0.8	0.58	rare(ly)	0.05	0.03
frequent(ly)	0.7	0.57	scarcely	0.02	0.01
usually	0.8	0.57	hardly	0.02	0.01
normally	0.8	0.57	hardly ever	0.02	0.01
regular(ly)	0.7	0.55			

#### 4. Timing of action

word	original score	scaled score	word	original score	scaled score
now	1	1	next	0.8	0.63
today	1	1	early	0.7	0.57
immediate(ly)	1	0.99	next week	0.7	0.56
tonight	1	0.98	earlier	0.6	0.49
imminent(ly)	1	0.96	soon	0.5	0.39
first	1	0.94	this year	0.5	0.35
haste/hasty/hastily	1	0.86	afterwards	0.4	0.28
tomorrow	0.9	0.78	after	0.4	0.28
prompt(ly)	0.9	0.77	long	0.2	0.12
as soon as possible	0.9	0.77	later	0.2	0.11
quick(ly)	0.8	0.71	late	0.2	0.11
rapid(ly)	0.8	0.71	slow(ly)	0.2	0.11
this week	0.8	0.69	finally	0.1	0.07
fast	0.8	0.68	eventually	0.05	0.03
before	0.7	0.67	at some point	0.05	0.03
short(ly)	0.8	0.65	at some stage	0.05	0.03
speedy/speedily	0.8	0.64			

## Survey for urgency dictionary

*This survey is part of an academic study on how people recognise and interpret the urgency of problems and policies in political speeches.*

*Please consider each option carefully. Your responses will be recorded anonymously and will only be used for the purposes of this study. The survey should take approximately 10 minutes to complete.*

*If you agree to participate in this study, please click the arrow button below. Thank you for your time!*

### Survey 1

#### Section 1

1. We should implement this policy now. VS We should implement this policy later.

(13 questions, 5 displayed)

2. We should implement this policy as soon as possible. VS We should implement this policy immediately.
3. This needs to be done promptly. VS This needs to be done slowly.
4. We must meet tomorrow. VS We must meet today.
5. This issue will have a significant impact if not addressed soon. VS This issue will have a significant impact if not addressed now.
6. This problem must be fixed next week. VS This problem must be fixed this year.
7. Let's strive towards this goal slowly. VS Let's strive towards this goal at some stage.
8. This policy can be implemented as soon as possible. VS This policy can be implemented next.
9. This should be done first. VS This should be done rapidly.
10. I will review this immediately. VS I will review this promptly.
11. We should do this before next week. VS We should do this early next week.
12. We will start this project first. VS We will start this project soon.
13. Let's move to the next task as soon as possible. VS Let's move to the next task promptly.
14. The next crisis could occur imminently. VS The next crisis could occur soon.

#### Section 2

*Please indicate the level of urgency for each option in the sentence below. Note that each category may be selected more than once.*

*'This needs to be completed \_\_\_\_.' (options: less urgent; urgent; very urgent)*

(4 questions, 2 displayed)

1. this week, today, this year
2. tomorrow, next week, tonight
3. now, immediately, imminently
4. later, at some point, eventually

*Please indicate the level of urgency for each option in the sentence below. Note that each category may be selected more than once.*

*'We should implement this \_\_\_\_\_. ' (options: less urgent; urgent; very urgent)*

(4 questions, 2 displayed)

1. early, soon, eventually
2. next, quickly, immediately
3. slowly, later, finally
4. imminently, immediately, early

*Please rank the options such that the sentence sounds more urgent: 'This project can be implemented \_\_\_\_\_. ' (1 being most urgent, 3 being least urgent.)*

(3 questions, 1 displayed)

1. first, quickly, finally
2. at some point, speedily, promptly
3. soon, afterwards, shortly

Section 3 (13 questions, 5 displayed)

1. We should always have this on the agenda. VS We should often have this on the agenda.
2. Everyday we can make a difference for this country. VS Sometimes we can make a difference for this country.
3. We will have a weekly review. VS We will have a monthly review.
4. The team is going to monitor this on a weekly basis. VS The team is going to monitor this on an hourly basis.
5. The program might run into problems frequently. VS The program might run into problems sometimes.
6. This will scarcely make a difference. VS This will gradually make a difference.
7. We must always have enough supplies. VS We must regularly have enough supplies.
8. The frequency of crises occurring will increase steadily. VS The frequency of crises occurring will increase progressively.
9. We need to have a meeting together sometimes. VS We need to have a meeting together occasionally.
10. This should be an infrequent occurrence. VS This should be an unusual occurrence.
11. You should generally consider public opinion before implementing policies. VS You should sometimes consider public opinion before implementing policies.
12. The committee needs to meet irregularly. VS The committee needs to meet occasionally.



13. We must work relentlessly to achieve success. VS We must work incessantly to achieve success.

Section 4 (16 questions, 6 displayed)

1. We must be \_\_\_\_ in our efforts to implement this.
  - a. determined
  - b. realistic
2. This will be \_\_\_\_ important for us.
  - a. especially
  - b. really
3. I \_\_\_\_ urge you to support these policies.
  - a. strongly
  - b. firmly
4. You should put in \_\_\_\_ effort to complete this.
  - a. maximum
  - b. plenty of
5. I will \_\_\_\_ support you.
  - a. fully
  - b. definitely
6. We will work \_\_\_\_ to fix this problem.
  - a. intensively
  - b. vigorously
7. We will be \_\_\_\_ at the targeted level.
  - a. almost
  - b. barely
8. This will be an \_\_\_\_ effort to raise the amount of funds needed.
  - a. intense
  - b. unmatched
9. This year we will come \_\_\_\_ to our target.
  - a. rather close
  - b. almost
10. This policy should have an \_\_\_\_ reach.
  - a. average
  - b. extensive
11. Our country will make \_\_\_\_ progress if these changes are not implemented.
  - a. minimal
  - b. little
12. The effects of this policy will be \_\_\_\_.
  - a. everywhere
  - b. extensive
13. It could be \_\_\_\_ difficult to secure the resources we need.
  - a. extremely
  - b. really

14. We need \_\_\_\_ resources to effectively address this issue.
- more
  - extra
15. We need \_\_\_\_ measures to resolve this crisis.
- much stronger
  - exceptional
16. We need to set targets that \_\_\_\_.
- are above current standards
  - are unmatched

Section 5 (3 questions, 1 displayed)

*Please rank the following statements in order of urgency (1 being the most urgent and 5 being the least urgent).*

Q1.

- We must implement these measures to limit our carbon emissions now.
- We should implement these measures to limit our carbon emissions now.
- We must implement these measures to limit our carbon emissions.
- We must vigorously implement these measures to limit our carbon emissions.
- We must constantly implement these measures to limit our carbon emissions.

Q2.

- We must implement these measures to limit inflation now.
- We should implement these measures to limit inflation now.
- We must implement these measures to limit inflation.
- We must vigorously implement these measures to limit inflation.
- We must constantly implement these measures to limit inflation.

Q3.

- We must implement these measures to limit unemployment levels now.
- We should implement these measures to limit unemployment levels now.
- We must implement these measures to limit unemployment levels.
- We must vigorously implement these measures to limit unemployment levels.
- We must constantly implement these measures to limit unemployment levels.

Section 6

*Thank you for your responses to our questions on urgency! In this last section, we collect some basic information to better interpret your responses.*

1. Please select the level of English fluency that is most applicable to you:
- Native English speaker
  - Non-native fluent speaker/ professional or academic proficiency

- Basic conversation
  - Other (please specify): \_\_\_\_\_
2. Do you read, watch, or listen to the news in English?
- Yes
  - No
3. What is the highest level of school or degree you have completed?
- Primary/elementary education
  - High school diploma or equivalent
  - Bachelor's degree
  - Master's degree
  - Doctoral degree
  - Other (please specify): \_\_\_\_\_
4. Which age group do you belong to?
- Less than 20 years
  - 20-29 years
  - 30-39 years
  - 40-49 years
  - 50-59 years
  - More than 60 years
5. Gender: How do you identify? \_\_\_\_\_ (open-ended question)

## Survey 2

### Section 1

1. We should implement this policy now. VS We should implement this policy later.

(13 questions, 5 displayed)

2. We should implement this policy as soon as possible. VS We should implement this policy immediately.
3. This needs to be done promptly. VS This needs to be done slowly.
4. We must meet tomorrow. VS We must meet today.
5. This issue will have a significant impact if not addressed soon. VS This issue will have a significant impact if not addressed now.
6. This problem must be fixed next week. VS This problem must be fixed this year.
7. Let's strive towards this goal slowly. VS Let's strive towards this goal at some stage.
8. This policy can be implemented as soon as possible. VS This policy can be implemented next.
9. This should be done first. VS This should be done rapidly.

10. I will review this immediately. VS I will review this promptly.
11. We should do this before next week. VS We should do this early next week.
12. We will start this project first. VS We will start this project soon.
13. Let's move to the next task as soon as possible. VS Let's move to the next task promptly.
14. The next crisis could occur imminently. VS The next crisis could occur soon.

## Section 2

*Please select the option that would make the sentence sound more urgent:*

(5 questions, 2 displayed)

1. We will take \_\_\_\_ to achieve this.
  - a. a long time
  - b. less time
2. We should handle that problem \_\_\_\_.
  - a. after this one
  - b. at some point
3. I will complete this assignment \_\_\_\_.
  - a. later
  - b. eventually
4. We will approve this \_\_\_\_.
  - a. today
  - b. tonight
5. We are going to achieve this target \_\_\_\_.
  - a. this year
  - b. at some stage

(7 questions, 3 displayed)

6. Let's do this \_\_\_\_.
  - a. quickly
  - b. early
7. This needs to be done \_\_\_\_.
  - a. soon
  - b. promptly
8. You must submit this \_\_\_\_.
  - a. soon
  - b. with haste
9. We should meet \_\_\_\_.
  - a. soon
  - b. immediately
10. We need to be ready for the \_\_\_\_ transformation of the world.

- a. imminent
  - b. fast
11. We must submit this \_\_\_\_.
- a. early
  - b. first
12. We should implement this change \_\_\_\_.
- a. over a long period of time
  - b. later

### Section 3

(10 questions, 4 displayed)

*Please indicate the level of urgency for each option in the sentence below. Note that each category may be selected more than once.*

*'We will do a review \_\_\_\_.' (options: less urgent; urgent; very urgent)*

- 1. every month, every year, every hour
- 2. every week, everyday, every quarter
- 3. sometimes, occasionally, annually
- 4. everyday, frequently, regularly

*Please indicate the level of urgency for each option in the sentence below. Note that each category may be selected more than once.*

*'We will monitor this situation \_\_\_\_.' (options: less urgent; urgent; very urgent)*

- 1. often, occasionally, constantly
- 2. often, sometimes, irregularly
- 3. frequently, hardly ever, usually
- 4. rarely, unusual, hardly
- 5. occasionally, gradually, regularly
- 6. intermittently, sporadically, incessantly

(6 questions, 2 displayed)

*Please rank the options such that the sentence sounds more urgent: 'We should implement this \_\_\_\_.' (1 being most urgent, 3 being least urgent.)*

- 1. rarely, occasionally, infrequently
- 2. hardly, occasionally, regularly
- 3. rarely, occasionally, persistently
- 4. gradually, often, frequently
- 5. regularly, sometimes, steadily
- 6. usually, sometimes, constantly

### Section 4 (16 questions, 6 displayed)

*Please select the sentence that sounds more urgent to you.*

1. They should implement these changes. VS They could implement these changes.
2. We need to do something about this. VS We will do something about this.
3. This is an option that we should consider. VS This is an option that we will consider.
4. We must direct our attention to this problem. VS We will direct our attention to this problem.
5. I am ready to take action. VS I am going to take action.
6. It would be good to address this problem. VS It would be ideal to address this problem.
7. We have to include this. VS We might include this.
8. We need to do this now. VS We want to do this now.
9. I want to have this report ready soon. VS I promise to have this report ready soon.
10. They will pay more attention to this problem. VS They could pay more attention to this problem.
11. We must implement this policy now. VS It is time to implement this policy now.
12. This will be a serious problem. VS This will be a significant problem.
13. It would be necessary to implement this policy. VS It would be preferable to implement this policy.
14. Let's analyse the effects of this policy. VS It is time to analyse the effects of this policy.
15. We promise to do what is needed. VS Let's do what is needed.
16. The benefits of this program may be ambiguous. VS The benefits of this program may be insignificant.

Section 5 (3 questions, 1 displayed)

*Please rank the following statements in order of urgency (1 being the most urgent and 5 being the least urgent).*

Q1.

- We must implement these measures to limit our carbon emissions now.
- We should implement these measures to limit our carbon emissions now.
- We must implement these measures to limit our carbon emissions.
- We must vigorously implement these measures to limit our carbon emissions.
- We must constantly implement these measures to limit our carbon emissions.

Q2.

- We must implement these measures to limit inflation now.
- We should implement these measures to limit inflation now.
- We must implement these measures to limit inflation.
- We must vigorously implement these measures to limit inflation.
- We must constantly implement these measures to limit inflation.

Q3.

- We must implement these measures to limit unemployment levels now.
- We should implement these measures to limit unemployment levels now.
- We must implement these measures to limit unemployment levels.
- We must vigorously implement these measures to limit unemployment levels.
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*Thank you for your responses to our questions on urgency! In this last section, we collect some basic information to better interpret your responses.*

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3. What is the highest level of school or degree you have completed?
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  - Bachelor's degree
  - Master's degree
  - Doctoral degree
  - Other (please specify): \_\_\_\_\_
4. Which age group do you belong to?
  - Less than 20 years
  - 20-29 years
  - 30-39 years
  - 40-49 years
  - 50-59 years
  - More than 60 years
5. Gender: How do you identify? \_\_\_\_\_ (open-ended question)

## Survey 3

### Section 1

1. We should implement this policy now. VS We should implement this policy later.

(13 questions, 5 displayed)

2. We should implement this policy as soon as possible. VS We should implement this policy immediately.
3. This needs to be done promptly. VS This needs to be done slowly.
4. We must meet tomorrow. VS We must meet today.
5. This issue will have a significant impact if not addressed soon. VS This issue will have a significant impact if not addressed now.
6. This problem must be fixed next week. VS This problem must be fixed this year.
7. Let's strive towards this goal slowly. VS Let's strive towards this goal at some stage.
8. This policy can be implemented as soon as possible. VS This policy can be implemented next.
9. This should be done first. VS This should be done rapidly.
10. I will review this immediately. VS I will review this promptly.
11. We should do this before next week. VS We should do this early next week.
12. We will start this project first. VS We will start this project soon.
13. Let's move to the next task as soon as possible. VS Let's move to the next task promptly.
14. The next crisis could occur imminently. VS The next crisis could occur soon.

## Section 2

*Please indicate the level of urgency for each option in the sentence below. Note that each category may be selected more than once.*

*'This needs to be completed \_\_\_\_.' (options: less urgent; urgent; very urgent)*

(4 questions, 2 displayed)

1. this week, today, this year
2. tomorrow, next week, tonight
3. now, immediately, imminently
4. later, at some point, eventually

*Please indicate the level of urgency for each option in the sentence below. Note that each category may be selected more than once.*

*'We should implement this \_\_\_\_.' (options: less urgent; urgent; very urgent)*

(4 questions, 2 displayed)

1. early, soon, eventually
2. next, quickly, immediately
3. slowly, later, finally
4. imminently, immediately, early



*Please rank the options such that the sentence sounds more urgent: 'This project can be implemented \_\_\_\_.' (1 being most urgent, 3 being least urgent.)*

(3 questions, 1 displayed)

1. first, quickly, finally
2. at some point, speedily, promptly
3. soon, afterwards, shortly

Section 3 (15 questions, 6 displayed)

*Please select the sentence that sounds more urgent to you.*

1. We must put in extra effort. VS We must put in more effort.
2. We will put some effort into this program. VS We will put enough effort into this program.
3. This should change things for us slightly. VS This should change things for us substantially.
4. This will generate limited benefits for future generations. VS This will generate insufficient benefits for future generations.
5. I am completely ready to endorse this proposal. VS I am nearly ready to endorse this proposal.
6. These changes should be realistic. VS These changes should be substantial.
7. This will have some impact on public opinion. VS This will have limited impact on public opinion.
8. We need to implement a clear shift from the previous policy. VS We need to implement a substantial shift from the previous policy.
9. There should be a clear change in policy. VS There should be a remarkable change in policy.
10. They can take a slightly different approach. VS They can take a moderately different approach.
11. This will generate some benefits for us. VS This will generate enormous benefits for us.
12. The project should definitely be completed by then. VS The project should practically be completed by then.
13. This restriction will have an extensive impact. VS This restriction will have a pervasive impact.
14. The effects of the crisis could be felt globally. VS The effects of the crisis could be felt everywhere.
15. The impact of this crisis would be moderate. VS The impact of this crisis would be minimal.

Section 4 (16 questions, 6 displayed)

*Please select the option that would make the sentence sound more urgent:*

1. \_\_\_\_ do something about this tonight.
  - a. Let's
  - b. We are obliged to
2. It is \_\_\_\_ to pass this bill.
  - a. time
  - b. essential
3. This program would be \_\_\_\_.
  - a. invaluable
  - b. useful
4. We \_\_\_\_ implement this policy.
  - a. might
  - b. want to
5. This will be a/an \_\_\_\_ problem for us.
  - a. serious
  - b. unavoidable
6. This problem \_\_\_\_ be resolved.
  - a. can
  - b. should
7. I \_\_\_\_ implement this policy.
  - a. am ready to
  - b. want to
8. We are \_\_\_\_ relax the restrictions.
  - a. going to
  - b. able to
9. It would be \_\_\_\_ to provide more incentives.
  - a. good
  - b. better
10. We will implement the \_\_\_\_ solution.
  - a. optimal
  - b. ideal
11. This policy will be \_\_\_\_ for addressing this problem.
  - a. necessary
  - b. significant
12. It should be \_\_\_\_ to maintain this restriction in the future.
  - a. optional
  - b. preferable
13. We would be \_\_\_\_ to provide this subsidy.
  - a. willing
  - b. able
14. If you \_\_\_\_, this will be added to the agenda.
  - a. think it is necessary
  - b. are willing
15. If we do not fill this gap, there will be \_\_\_\_ consequences for the public.
  - a. major

- b. severe
16. This policy will have \_\_\_\_ repercussions for his career.
- a. severe
- b. significant

Section 5 (3 questions, 1 displayed)

*Please rank the following statements in order of urgency (1 being the most urgent and 5 being the least urgent).*

Q1.

- We must implement these measures to limit our carbon emissions now.
- We should implement these measures to limit our carbon emissions now.
- We must implement these measures to limit our carbon emissions.
- We must vigorously implement these measures to limit our carbon emissions.
- We must constantly implement these measures to limit our carbon emissions.

Q2.

- We must implement these measures to limit inflation now.
- We should implement these measures to limit inflation now.
- We must implement these measures to limit inflation.
- We must vigorously implement these measures to limit inflation.
- We must constantly implement these measures to limit inflation.

Q3.

- We must implement these measures to limit unemployment levels now.
- We should implement these measures to limit unemployment levels now.
- We must implement these measures to limit unemployment levels.
- We must vigorously implement these measures to limit unemployment levels.
- We must constantly implement these measures to limit unemployment levels.

Section 6

*Thank you for your responses to our questions on urgency! In this last section, we collect some basic information to better interpret your responses.*

1. Please select the level of English fluency that is most applicable to you:
  - Native English speaker
  - Non-native fluent speaker/ professional or academic proficiency
  - Basic conversation
  - Other (please specify): \_\_\_\_\_
2. Do you read, watch, or listen to the news in English?
  - Yes

- No
3. What is the highest level of school or degree you have completed?
    - Primary/elementary education
    - High school diploma or equivalent
    - Bachelor's degree
    - Master's degree
    - Doctoral degree
    - Other (please specify): \_\_\_\_\_
  4. Which age group do you belong to?
    - Less than 20 years
    - 20-29 years
    - 30-39 years
    - 40-49 years
    - 50-59 years
    - More than 60 years
  5. Gender: How do you identify? \_\_\_\_\_ (open-ended question)

#### Survey 4

##### Section 1

1. We should implement this policy now. VS We should implement this policy later.

(13 questions, 5 displayed)

2. We should implement this policy as soon as possible. VS We should implement this policy immediately.
3. This needs to be done promptly. VS This needs to be done slowly.
4. We must meet tomorrow. VS We must meet today.
5. This issue will have a significant impact if not addressed soon. VS This issue will have a significant impact if not addressed now.
6. This problem must be fixed next week. VS This problem must be fixed this year.
7. Let's strive towards this goal slowly. VS Let's strive towards this goal at some stage.
8. This policy can be implemented as soon as possible. VS This policy can be implemented next.
9. This should be done first. VS This should be done rapidly.
10. I will review this immediately. VS I will review this promptly.
11. We should do this before next week. VS We should do this early next week.
12. We will start this project first. VS We will start this project soon.
13. Let's move to the next task as soon as possible. VS Let's move to the next task promptly.

14. The next crisis could occur imminently. VS The next crisis could occur soon.

## Section 2 (17 questions, 6 displayed)

*Please indicate the level of urgency for each option in the sentence below. Note that each category may be selected more than once.*

*'We (are) \_\_\_\_ implement this program.' (options: less urgent; urgent; very urgent)*

1. want to, going to, can
2. want to, need to, should
3. could, may, must
4. must, ready to, have to
5. obliged to, need to, ready to
6. can, could, would
7. have to, need to, promise to

*Please indicate the level of urgency for each option in the sentence below. Note that each category may be selected more than once.*

*'It would be \_\_\_\_ to implement this policy.' (options: less urgent; urgent; very urgent)*

1. relevant, important, good
2. necessary, ideal, useful
3. possible, preferable, timely
4. great, necessary, invaluable
5. good, optimal, best
6. necessary, important, essential
7. essential, unavoidable, imperative
8. opportune, timely, trivial
9. insignificant, significant, possible

*Please indicate the level of urgency for each option in the sentence below. Note that each category may be selected more than once.*

*'I would be \_\_\_\_ about implementing this program.' (options: less urgent; urgent; very urgent)*

1. cautious, ambivalent, serious

## Section 3

(9 questions, 4 displayed)

*Please indicate the level of urgency for each option in the sentence below. Note that words may be rated in the same category.*

*'It is \_\_\_\_ important to implement this policy.' (options: less urgent; urgent; very urgent)*

1. moderately, extremely, definitely
2. really, rather, certainly
3. highly, really, definitely
4. slightly, most, reasonably

5. rather, quite, moderately
6. more, certainly, definitely
7. highly, very, somewhat

*Please indicate the level of urgency for each option in the sentence below. Note that words may be rated in the same category.*

*'We \_\_\_\_ need to reach this target in the coming year.' (options: less urgent; urgent; very urgent)*

1. desperately, urgently, definitely
2. really, simply, certainly

(6 questions, 2 displayed)

*Please rank the options such that the sentence sounds more urgent: 'We will \_\_\_\_ enforce this ban.' (1 being most urgent, 3 being least urgent.)*

1. strongly, substantially, adequately

*Please rank the options such that the sentence sounds more urgent: 'It is \_\_\_\_ time to enforce tougher restrictions.' (1 being most urgent, 3 being least urgent.)*

2. certainly, nearly, almost

*Please rank the options such that the sentence sounds more urgent: 'We must set a/an \_\_\_\_ target for the next ten years.' (1 being most urgent, 3 being least urgent.)*

3. ambitious, realistic, reasonable
4. unmatched, modest, low
5. modest, extensive, tremendous

*Please rank the options such that the sentence sounds more urgent: "We must ensure there will be \_\_\_\_ benefits from this exercise." (1 being most urgent, 3 being least urgent.)*

6. lots of, enough, some

Section 4 (12 questions, 5 displayed)

*Please select the option that would make the sentence sound more urgent:*

1. We need to update this \_\_\_\_ .
  - a. sometimes
  - b. regularly
2. \_\_\_\_ the protocol needs to be followed.
  - a. Sometimes
  - b. Usually
3. This problem will \_\_\_\_ worsen.
  - a. progressively
  - b. gradually

4. We must be \_\_\_\_ alert.
  - a. constantly
  - b. usually
5. We will address this problem that has \_\_\_\_ occurred.
  - a. seldom
  - b. rarely
6. This problem will occur \_\_\_\_ in the future.
  - a. infrequently
  - b. occasionally
7. We may increase the restrictions \_\_\_\_.
  - a. intermittently
  - b. incrementally
8. The policy will \_\_\_\_ affect their daily lives.
  - a. hardly
  - b. scarcely
9. We \_\_\_\_ need to reconsider our decisions.
  - a. sometimes
  - b. seldom
10. We must resolve issues that occur \_\_\_\_.
  - a. infrequently
  - b. sporadically
11. We will \_\_\_\_ encounter these challenges again.
  - a. occasionally
  - b. seldom
12. \_\_\_\_, we should be prepared to address this issue again.
  - a. Generally
  - b. Usually

Section 5 (3 questions, 1 displayed)

*Please rank the following statements in order of urgency (1 being the most urgent and 5 being the least urgent).*

Q1.

- We must implement these measures to limit our carbon emissions now.
- We should implement these measures to limit our carbon emissions now.
- We must implement these measures to limit our carbon emissions.
- We must vigorously implement these measures to limit our carbon emissions.
- We must constantly implement these measures to limit our carbon emissions.

Q2.

- We must implement these measures to limit inflation now.
- We should implement these measures to limit inflation now.
- We must implement these measures to limit inflation.

- We must vigorously implement these measures to limit inflation.
- We must constantly implement these measures to limit inflation.

Q3.

- We must implement these measures to limit unemployment levels now.
- We should implement these measures to limit unemployment levels now.
- We must implement these measures to limit unemployment levels.
- We must vigorously implement these measures to limit unemployment levels.
- We must constantly implement these measures to limit unemployment levels.

## Section 6

*Thank you for your responses to our questions on urgency! In this last section, we collect some basic information to better interpret your responses.*

1. Please select the level of English fluency that is most applicable to you:
  - Native English speaker
  - Non-native fluent speaker/ professional or academic proficiency
  - Basic conversation
  - Other (please specify): \_\_\_\_\_
2. Do you read, watch, or listen to the news in English?
  - Yes
  - No
3. What is the highest level of school or degree you have completed?
  - Primary/elementary education
  - High school diploma or equivalent
  - Bachelor's degree
  - Master's degree
  - Doctoral degree
  - Other (please specify): \_\_\_\_\_
4. Which age group do you belong to?
  - Less than 20 years
  - 20-29 years
  - 30-39 years
  - 40-49 years
  - 50-59 years
  - More than 60 years
5. Gender: How do you identify? \_\_\_\_\_ (open-ended question)



## Survey results

The *BradleyTerry2* package in R was used for the analysis of pairwise comparison data. The difference in the urgency of words in each pair is modelled by the number of times each word is selected within a pair. We fit the model by bias-reduced maximum likelihood rather than maximum likelihood (Turner and Firth, 2012), since the number of responses per question is not large and the number of times a word is compared is relatively small. Each dimension and the groups of words within each dimension that were compared in the survey separately were also modelled separately.

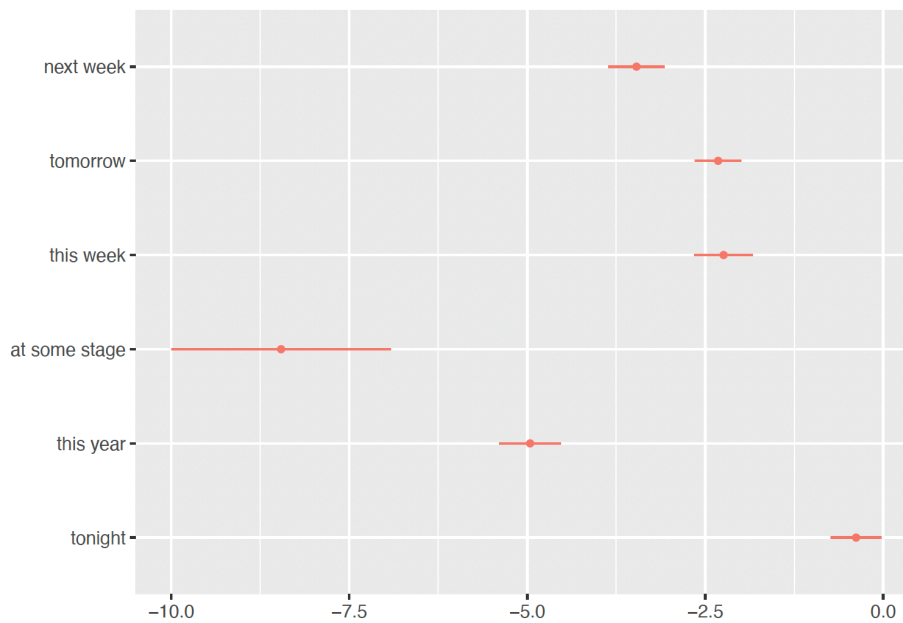
We obtained estimated coefficients for the words in each dimension in relation to a reference word. In the *timing* dimension, specific time point words (eg. today, tomorrow) and relative time point words (eg. later, soon) were compared and modelled separately. For the specific and relative time point words, the reference words used in the models were ‘today’ and ‘now’ respectively. In the *frequency* dimension, specific frequency words (eg. every week, everyday) and relative frequency words (eg. always, sometimes) were compared and modelled separately. The reference words chosen for the specific and relative frequency words were ‘hourly’ and ‘always’ respectively. In the *commitment* dimension, the verbs/adverbs and adjectives were compared and modelled separately. The reference words chosen for the verbs/adverbs and adjectives were ‘must’ and ‘necessary’ respectively. In the *intensity* dimension, ‘especially’ was used as the reference word. Words with positive coefficient estimates referred to words that respondents deemed more urgent than reference word, while words that with negative coefficients were deemed less urgent than the reference word.

Tables A1 to A7 and figures A1 to A7 below show the results from the models. The reference word for the first model presented below (Table A1 and Figure A1) for specific time point words is ‘today’. As expected, all of the estimated coefficients are negative, meaning that the words are less urgent than the reference word. All but one of the estimated coefficients are statistically significant.

Table A1 – estimates from Bradley-Terry model for specific time point words in *timing* dimension

term	estimate	std.error	statistic	p.value	stat.sig
next week	-3.466	0.393	-8.823	0.000	*
tomorrow	-2.320	0.325	-7.146	0.000	*
this week	-2.242	0.409	-5.479	0.000	*
at some stage	-8.457	1.542	-5.485	0.000	*
this year	-4.960	0.433	-11.450	0.000	*
tonight	-0.382	0.352	-1.084	0.278	

Figure A1 – plot of estimates with standard errors from Bradley-Terry model for specific time point words in *timing* dimension

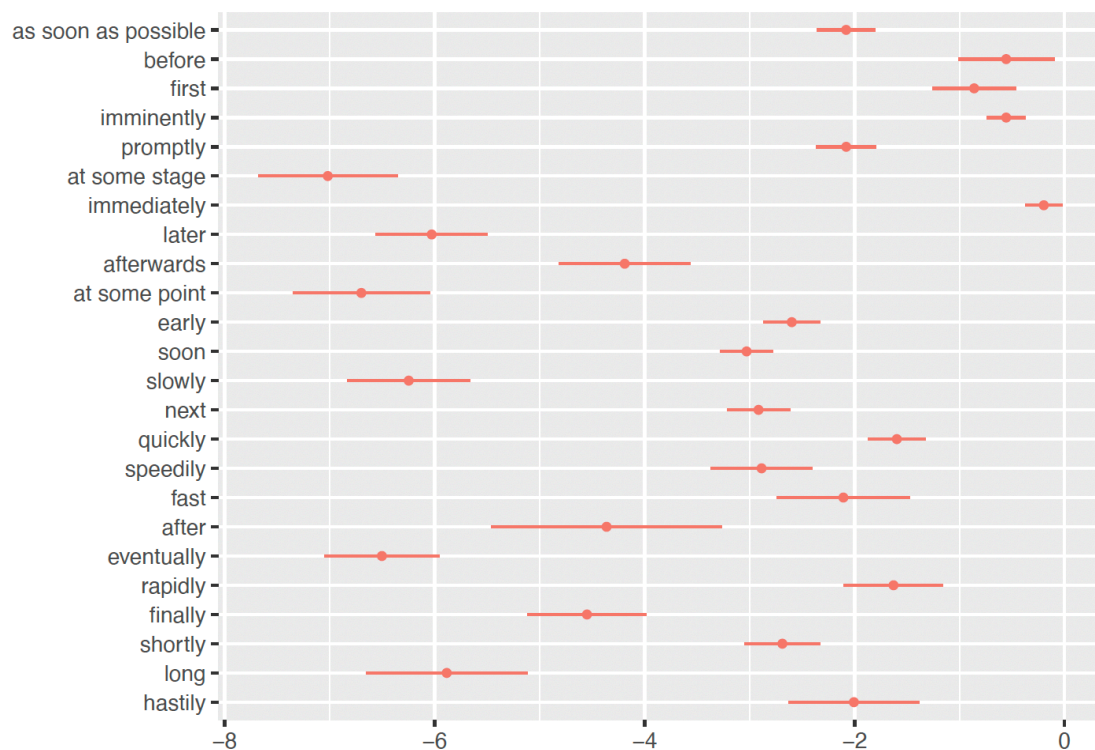


The reference word for the Bradley-Terry model (Table A2 and Figure A2) below for relative time point words is ‘now’. As expected, all of the estimated coefficients are negative, meaning that the words are less urgent than the reference word. Most of the estimated coefficients are statistically significant.

Table A2 – estimates from Bradley-Terry model for relative time point words in *timing* dimension

term	estimate	std.error	statistic	p.value	stat.sig
as soon as possible	-2.081	0.279	-7.468	0.000	*
before	-0.556	0.457	-1.217	0.223	
first	-0.861	0.397	-2.168	0.030	*
imminently	-0.556	0.183	-3.040	0.002	*
promptly	-2.080	0.283	-7.351	0.000	*
at some stage	-7.017	0.663	-10.583	0.000	*
immediately	-0.198	0.177	-1.123	0.262	
later	-6.027	0.530	-11.369	0.000	*
afterwards	-4.189	0.626	-6.691	0.000	*
at some point	-6.697	0.653	-10.253	0.000	*
early	-2.598	0.272	-9.546	0.000	*
soon	-3.028	0.252	-12.037	0.000	*
slowly	-6.246	0.586	-10.660	0.000	*
next	-2.915	0.301	-9.679	0.000	*
quickly	-1.598	0.273	-5.856	0.000	*
speedily	-2.886	0.480	-6.011	0.000	*
fast	-2.107	0.631	-3.340	0.001	*
after	-4.362	1.097	-3.976	0.000	*
eventually	-6.502	0.547	-11.883	0.000	*
rapidly	-1.629	0.473	-3.445	0.001	*
finally	-4.549	0.565	-8.057	0.000	*
shortly	-2.688	0.363	-7.404	0.000	*
long	-5.884	0.768	-7.658	0.000	*
hastily	-2.007	0.620	-3.237	0.001	*

Figure A2 – plot of estimates with standard errors from Bradley-Terry model for relative time point words in *timing* dimension

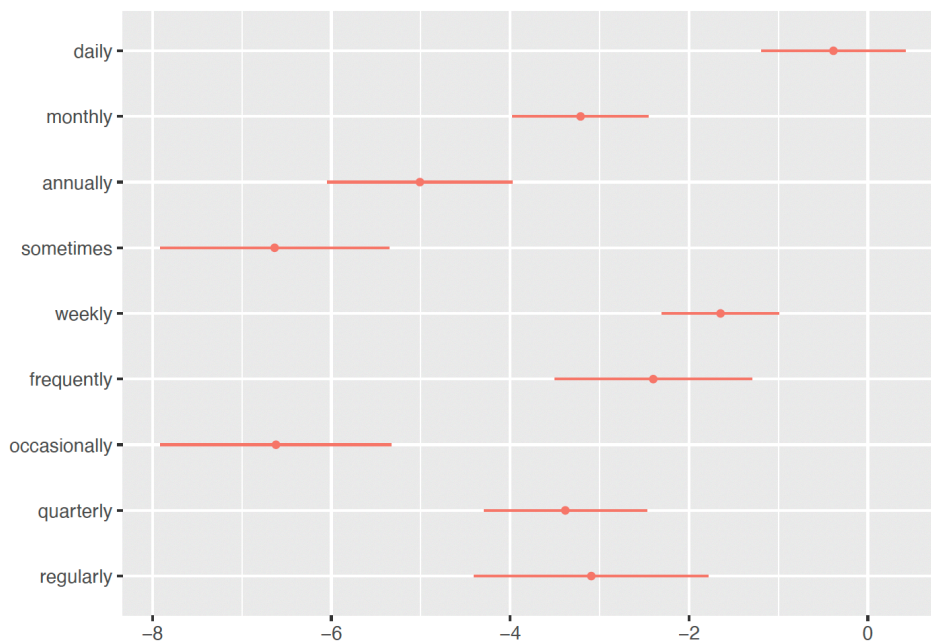


The reference word for the Bradley-Terry model below (Table A3 and Figure A3) for specific frequency words is ‘hourly’. As expected, all of the estimated coefficients are negative, meaning that the words are less urgent than the reference word. All but one of the estimated coefficients are statistically significant.

Table A3 – estimates from Bradley-Terry model for specific frequency words in *frequency* dimension

term	estimate	std.error	statistic	p.value	stat.sig
daily	-0.384	0.803	-0.478	0.632	
monthly	-3.212	0.759	-4.230	0.000	*
annually	-5.009	1.032	-4.854	0.000	*
sometimes	-6.634	1.280	-5.182	0.000	*
weekly	-1.647	0.654	-2.518	0.012	*
frequently	-2.399	1.101	-2.179	0.029	*
occasionally	-6.619	1.290	-5.129	0.000	*
quarterly	-3.383	0.910	-3.716	0.000	*
regularly	-3.092	1.309	-2.363	0.018	*

Figure A3 – plot of estimates with standard errors from Bradley-Terry model for specific frequency words in *frequency* dimension

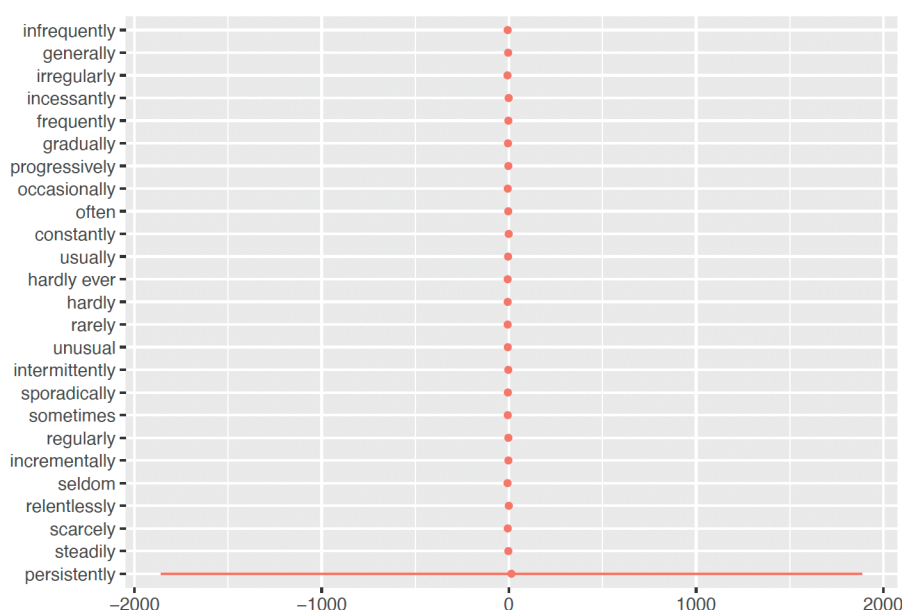


The reference word for the next Bradley-Terry model below (Table A4 and Figure A4) for relative frequency words is ‘always’. As expected, all but one of the estimated coefficients are negative, meaning that the words are less urgent than the reference word. Most of the estimated coefficients are statistically significant and have similar standard errors.

Table A4 – estimates from Bradley-Terry model for relative frequency words in *frequency* dimension

term	estimate	std.error	statistic	p.value	stat.sig
infrequently	-6.463	1.130	-5.718	0.000	*
generally	-3.992	1.209	-3.302	0.001	*
irregularly	-7.328	1.247	-5.875	0.000	*
incessantly	-1.023	1.774	-0.576	0.564	
frequently	-2.730	1.072	-2.546	0.011	*
gradually	-4.751	1.087	-4.373	0.000	*
progressively	-2.741	1.197	-2.291	0.022	*
occasionally	-6.017	1.092	-5.510	0.000	*
often	-3.366	1.060	-3.176	0.001	*
constantly	-0.987	1.209	-0.816	0.414	
usually	-4.267	1.115	-3.827	0.000	*
hardly ever	-6.461	1.495	-4.323	0.000	*
hardly	-6.297	1.136	-5.542	0.000	*
rarely	-6.480	1.110	-5.840	0.000	*
unusual	-5.774	1.177	-4.905	0.000	*
intermittently	-3.291	1.689	-1.949	0.051	
sporadically	-5.365	1.312	-4.088	0.000	*
sometimes	-5.936	1.092	-5.434	0.000	*
regularly	-2.752	1.042	-2.642	0.008	*
incrementally	-2.598	1.797	-1.446	0.148	
seldom	-7.126	1.144	-6.227	0.000	*
relentlessly	-0.330	1.910	-0.173	0.863	
scarcely	-5.876	1.199	-4.899	0.000	*
steadily	-2.810	1.125	-2.497	0.013	*
persistently	13.182	1873.643	0.007	0.994	

Figure A4 – plot of estimates with standard errors from Bradley-Terry model for relative frequency words in *frequency* dimension



From the unusually large standard error and the lack of statistical significance, the estimate for the word ‘persistently’ was considered to be an outlier and the estimated coefficient was

re-valued at 0, the same value as the reference word. This was to facilitate the scaling and weighting of the scores for this group of words in the dictionary.

The reference word for the Bradley-Terry models below (Table A5 and Figure A5) for commitment verbs and adverbs is ‘must’. As expected, all of the estimated coefficients are negative, meaning that the verbs and adverbs are less urgent than the reference word. Most of the estimated coefficients are statistically significant.

Table A5 – estimates from Bradley-Terry model for verbs/adverbs in *commitment* dimension

term	estimate	std.error	statistic	p.value	stat.sig
could	-7.044	1.048	-6.725	0.000	*
let’s	-1.801	0.522	-3.451	0.001	*
need to	-1.043	0.431	-2.419	0.016	*
should	-2.493	0.521	-4.782	0.000	*
going to	-1.642	0.578	-2.841	0.004	*
have to	-0.924	0.407	-2.270	0.023	*
promise to	-2.837	0.505	-5.620	0.000	*
can	-5.642	0.945	-5.973	0.000	*
want to	-2.579	0.470	-5.487	0.000	*
ready to	-1.941	0.437	-4.441	0.000	*
may	-7.633	1.344	-5.678	0.000	*
oblige	-1.013	0.488	-2.075	0.038	*
might	-6.103	1.527	-3.997	0.000	*
able	-3.063	0.842	-3.637	0.000	*
will	-2.653	0.540	-4.913	0.000	*
is time to	-0.847	0.474	-1.788	0.074	
would	-5.492	1.034	-5.311	0.000	*

Figure A5 – plot of estimates with standard errors from Bradley-Terry model for verbs/adverbs in *commitment* dimension

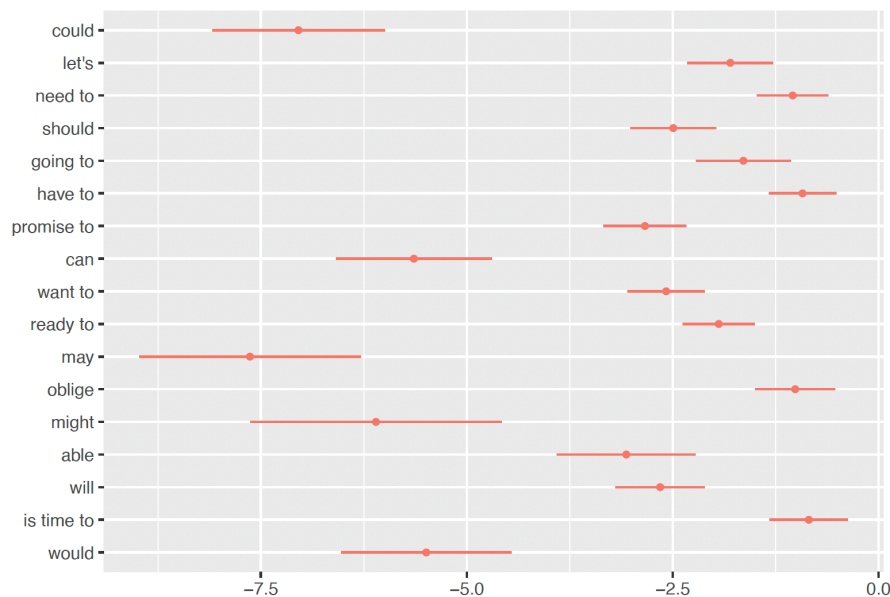


Table A6 – estimates from Bradley-Terry model for adjectives in *commitment* dimension

term	estimate	std.error	statistic	p.value	stat.sig
serious	0.790	0.583	1.355	0.175	
ambiguous	-3.072	1.290	-2.382	0.017	*
good	-2.043	0.523	-3.903	0.000	*
cautious	-1.688	1.037	-1.627	0.104	
ambivalent	-3.145	1.266	-2.484	0.013	*
optimal	-0.280	0.698	-0.401	0.688	
essential	0.703	0.366	1.920	0.055	
important	-0.395	0.349	-1.130	0.259	
relevant	-1.596	0.597	-2.672	0.008	*
great	-2.754	0.708	-3.893	0.000	*
ideal	-2.057	0.487	-4.228	0.000	*
unavoidable	0.442	0.475	0.930	0.353	
insignificant	-3.691	1.084	-3.405	0.001	*
opportune	-1.567	1.050	-1.492	0.136	
possible	-4.590	1.036	-4.432	0.000	*
significant	-1.035	0.497	-2.082	0.037	*
preferable	-2.056	0.749	-2.746	0.006	*
trivial	-2.226	1.096	-2.031	0.042	*
optional	-3.280	1.063	-3.085	0.002	*
able	-2.037	0.955	-2.133	0.033	*
major	-1.882	1.235	-1.524	0.128	
severe	0.575	0.873	0.659	0.510	
invaluable	-0.800	0.404	-1.982	0.047	*
better	-1.281	0.857	-1.494	0.135	
best	0.119	0.751	0.159	0.874	
imperative	1.091	0.495	2.202	0.028	*
useful	-2.525	0.512	-4.931	0.000	*
timely	-0.818	0.947	-0.863	0.388	
willing	-1.526	0.724	-2.107	0.035	*

Figure A6 – plot of estimates with standard errors from Bradley-Terry model for adjectives in *commitment* dimension

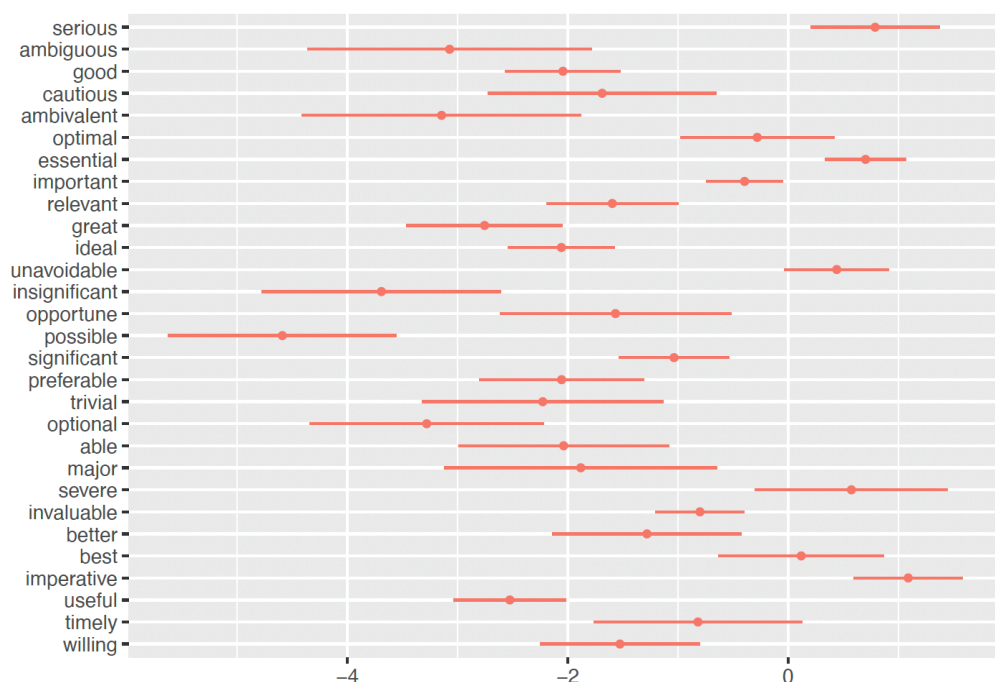


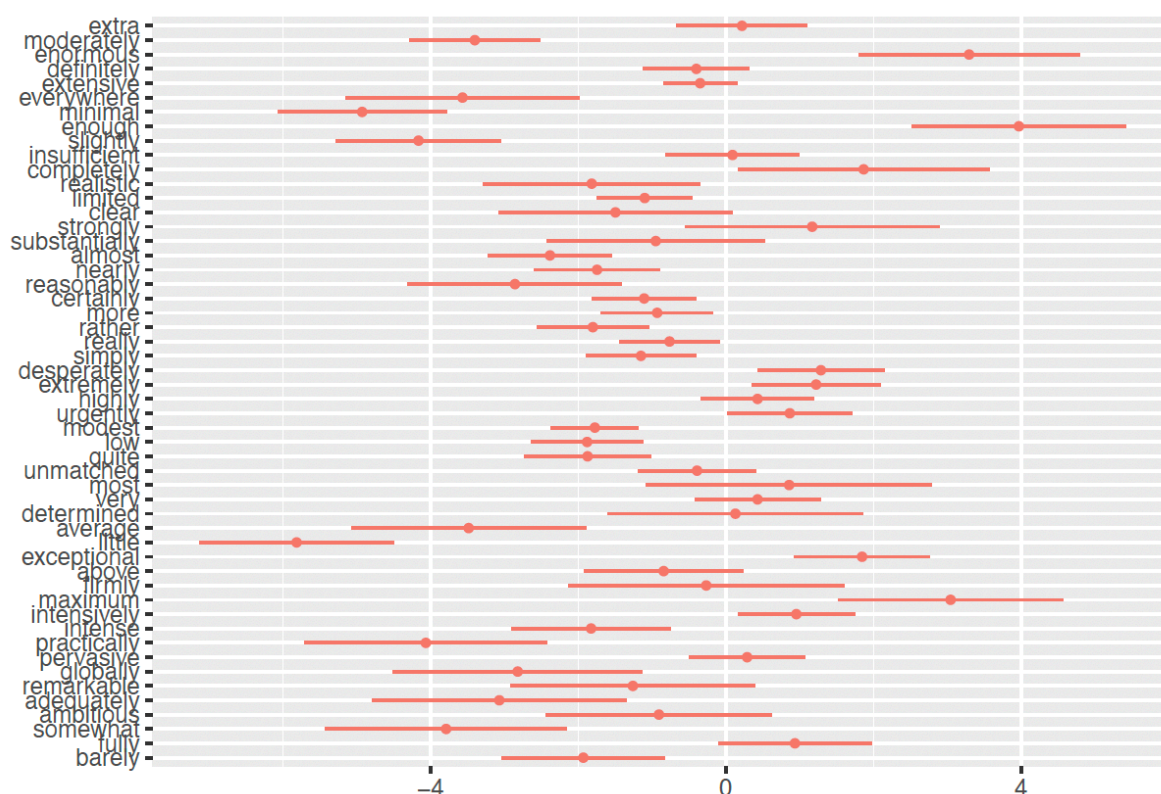


Table A7 – estimates from Bradley-Terry model for words in *intensity* dimension

term	estimate	std.error	statistic	p.value	stat.sig
extra	0.219	0.884	0.248	0.804	
moderately	-3.400	0.883	-3.852	0.000	*
enormous	3.296	1.495	2.205	0.027	*
definitely	-0.399	0.721	-0.554	0.580	
extensive	-0.347	0.497	-0.699	0.485	
everywhere	-3.566	1.581	-2.255	0.024	*
minimal	-4.926	1.142	-4.314	0.000	*
enough	3.970	1.455	2.729	0.006	*
slightly	-4.162	1.114	-3.737	0.000	*
insufficient	0.091	0.900	0.101	0.919	
completely	1.867	1.700	1.098	0.272	
realistic	-1.816	1.471	-1.234	0.217	
limited	-1.099	0.641	-1.715	0.086	
clear	-1.495	1.578	-0.948	0.343	
strongly	1.170	1.718	0.681	0.496	
substantially	-0.949	1.477	-0.642	0.521	
almost	-2.382	0.832	-2.862	0.004	*
nearly	-1.744	0.850	-2.051	0.040	*
reasonably	-2.856	1.449	-1.971	0.049	*
certainly	-1.106	0.700	-1.579	0.114	
more	-0.930	0.756	-1.229	0.219	
rather	-1.801	0.759	-2.374	0.018	*
really	-0.762	0.679	-1.123	0.262	
simply	-1.150	0.748	-1.538	0.124	
desperately	1.288	0.855	1.506	0.132	
extremely	1.223	0.871	1.405	0.160	
highly	0.430	0.764	0.562	0.574	
urgently	0.867	0.843	1.028	0.304	
modest	-1.774	0.593	-2.993	0.003	*
low	-1.879	0.755	-2.489	0.013	*
quite	-1.872	0.856	-2.187	0.029	*
unmatched	-0.390	0.795	-0.490	0.624	
most	0.858	1.934	0.444	0.657	
very	0.430	0.851	0.505	0.614	
determined	0.130	1.731	0.075	0.940	
average	-3.483	1.589	-2.192	0.028	*
little	-5.813	1.320	-4.402	0.000	*
exceptional	1.846	0.921	2.003	0.045	*
above	-0.842	1.076	-0.782	0.434	
firmly	-0.265	1.868	-0.142	0.887	
maximum	3.045	1.518	2.005	0.045	*
intensively	0.956	0.789	1.211	0.226	
intense	-1.825	1.081	-1.688	0.092	
practically	-4.063	1.637	-2.482	0.013	*
pervasive	0.289	0.784	0.368	0.713	
globally	-2.819	1.689	-1.669	0.095	
remarkable	-1.259	1.656	-0.760	0.447	
adequately	-3.067	1.718	-1.785	0.074	
ambitious	-0.905	1.525	-0.594	0.553	
somewhat	-3.788	1.635	-2.316	0.021	*
fully	0.936	1.035	0.905	0.366	
barely	-1.930	1.104	-1.748	0.080	



Figure A7 – plot of estimates with standard errors from Bradley-Terry model for words in *intensity* dimension



For the results in Table A6 and Figure A6, the reference word is ‘necessarily’ for adjectives in the *commitment* dimension. Most of the estimated coefficients are negative, meaning that the majority of the adjectives are less urgent than the reference word. Most of the estimated coefficients are statistically significant.

For the results in Table A7 and Figure A7, the reference word is ‘especially’ for adjectives and adverbs in the *intensity* dimension. All of the words in this dimension were compared and modelled together as a set. Most of the estimated coefficients are negative, meaning that the majority of the adjectives are less urgent than the reference word. In comparison to the other dimensions, there is much more variation in survey responses for the *intensity* dimension, with more than half of the estimates not being statistically significant. However, the estimates at the minimum and maximum ends of the scale are statistically significant, suggesting there is less variation among survey respondents on the words that are considered most and least urgent.

The estimated coefficients obtained from the Bradley-Terry models were scaled to range between 0.5 and 1. These estimates were then used to modify the scores assigned to the

words in our dictionary: the scaled estimates were used as weights for our original scores, and the final scores were obtained by multiplying the estimates with the original scores assigned to the words. The final scores can be seen in the copy of our dictionary in the first section of the appendix. In most cases, the ranking generated by the survey results was consistent with our dictionary rankings. Tables A8 to A11 below show the words in each dimension ranked by the estimated coefficients from the Bradley-Terry models scaled to the range of 0.5 to 1.

Table A8 – ranked estimates in *timing* dimension

term	estimate	std.error	statistic	p.value	stat.sig	conf.low	conf.high	scaled
today	0.000	NA	NA	NA	NA	NA	NA	1.000
tonight	-0.382	0.352	-1.084	0.278		-0.734	-0.030	0.977
this week	-2.242	0.409	-5.479	0.000	*	-2.651	-1.833	0.867
tomorrow	-2.320	0.325	-7.146	0.000	*	-2.644	-1.995	0.863
next week	-3.466	0.393	-8.823	0.000	*	-3.859	-3.073	0.795
this year	-4.960	0.433	-11.450	0.000	*	-5.394	-4.527	0.707
at some stage	-8.457	1.542	-5.485	0.000	*	-9.999	-6.915	0.500
now	0.000	NA	NA	NA	NA	NA	NA	1.000
immediately	-0.198	0.177	-1.123	0.262		-0.375	-0.022	0.986
before	-0.556	0.457	-1.217	0.223		-1.013	-0.099	0.960
imminently	-0.556	0.183	-3.040	0.002	*	-0.739	-0.373	0.960
first	-0.861	0.397	-2.168	0.030	*	-1.258	-0.464	0.939
quickly	-1.598	0.273	-5.856	0.000	*	-1.870	-1.325	0.886
rapidly	-1.629	0.473	-3.445	0.001	*	-2.102	-1.156	0.884
hastily	-2.007	0.620	-3.237	0.001	*	-2.627	-1.387	0.857
promptly	-2.080	0.283	-7.351	0.000	*	-2.363	-1.797	0.852
as soon as possible	-2.081	0.279	-7.468	0.000	*	-2.359	-1.802	0.852
fast	-2.107	0.631	-3.340	0.001	*	-2.738	-1.476	0.850
early	-2.598	0.272	-9.546	0.000	*	-2.871	-2.326	0.815
shortly	-2.688	0.363	-7.404	0.000	*	-3.051	-2.325	0.808
speedily	-2.886	0.480	-6.011	0.000	*	-3.366	-2.406	0.794
next	-2.915	0.301	-9.679	0.000	*	-3.216	-2.614	0.792
soon	-3.028	0.252	-12.037	0.000	*	-3.280	-2.777	0.784
afterwards	-4.189	0.626	-6.691	0.000	*	-4.815	-3.563	0.701
after	-4.362	1.097	-3.976	0.000	*	-5.459	-3.265	0.689
finally	-4.549	0.565	-8.057	0.000	*	-5.113	-3.984	0.676
long	-5.884	0.768	-7.658	0.000	*	-6.652	-5.116	0.581
later	-6.027	0.530	-11.369	0.000	*	-6.557	-5.497	0.571
slowly	-6.246	0.586	-10.660	0.000	*	-6.832	-5.660	0.555
eventually	-6.502	0.547	-11.883	0.000	*	-7.049	-5.954	0.537
at some point	-6.697	0.653	-10.253	0.000	*	-7.351	-6.044	0.523
at some stage	-7.017	0.663	-10.583	0.000	*	-7.680	-6.354	0.500

Table A9 – ranked estimates in *frequency* dimension

term	estimate	std.error	statistic	p.value	stat.sig	conf.low	conf.high	scaled
hourly	0.000	NA	NA	NA	NA	NA	NA	1.000
daily	-0.384	0.803	-0.478	0.632		-1.188	0.419	0.971
weekly	-1.647	0.654	-2.518	0.012	*	-2.301	-0.993	0.876
frequently	-2.399	1.101	-2.179	0.029	*	-3.500	-1.298	0.819
regularly	-3.092	1.309	-2.363	0.018	*	-4.401	-1.784	0.767
monthly	-3.212	0.759	-4.230	0.000	*	-3.972	-2.453	0.758
quarterly	-3.383	0.910	-3.716	0.000	*	-4.293	-2.472	0.745
annually	-5.009	1.032	-4.854	0.000	*	-6.041	-3.977	0.622
occasionally	-6.619	1.290	-5.129	0.000	*	-7.909	-5.328	0.501
sometimes	-6.634	1.280	-5.182	0.000	*	-7.914	-5.354	0.500
persistently	13.182	1873.643	0.007	0.994		-1860.461	1886.824	1.000
always	0.000	NA	NA	NA	NA	NA	NA	0.679
relentlessly	-0.330	1.910	-0.173	0.863		-2.240	1.581	0.671
constantly	-0.987	1.209	-0.816	0.414		-2.196	0.222	0.655
incessantly	-1.023	1.774	-0.576	0.564		-2.797	0.752	0.654
incrementally	-2.598	1.797	-1.446	0.148		-4.394	-0.801	0.615
frequently	-2.730	1.072	-2.546	0.011	*	-3.802	-1.658	0.612
progressively	-2.741	1.197	-2.291	0.022	*	-3.938	-1.545	0.612
regularly	-2.752	1.042	-2.642	0.008	*	-3.794	-1.710	0.612
steadily	-2.810	1.125	-2.497	0.013	*	-3.935	-1.684	0.610
intermittently	-3.291	1.689	-1.949	0.051		-4.980	-1.602	0.598
often	-3.366	1.060	-3.176	0.001	*	-4.426	-2.306	0.597
generally	-3.992	1.209	-3.302	0.001	*	-5.201	-2.783	0.581
usually	-4.267	1.115	-3.827	0.000	*	-5.382	-3.152	0.575
gradually	-4.751	1.087	-4.373	0.000	*	-5.837	-3.664	0.563
sporadically	-5.365	1.312	-4.088	0.000	*	-6.677	-4.053	0.548
unusual	-5.774	1.177	-4.905	0.000	*	-6.951	-4.597	0.538
scarcely	-5.876	1.199	-4.899	0.000	*	-7.075	-4.676	0.535
sometimes	-5.936	1.092	-5.434	0.000	*	-7.029	-4.844	0.534
occasionally	-6.017	1.092	-5.510	0.000	*	-7.109	-4.925	0.532
hardly	-6.297	1.136	-5.542	0.000	*	-7.434	-5.161	0.525
hardly ever	-6.461	1.495	-4.323	0.000	*	-7.955	-4.966	0.521
infrequently	-6.463	1.130	-5.718	0.000	*	-7.594	-5.333	0.521
rarely	-6.480	1.110	-5.840	0.000	*	-7.590	-5.371	0.521
seldom	-7.126	1.144	-6.227	0.000	*	-8.270	-5.982	0.505
irregularly	-7.328	1.247	-5.875	0.000	*	-8.576	-6.081	0.500

Table A10 – ranked estimates in *commitment* dimension

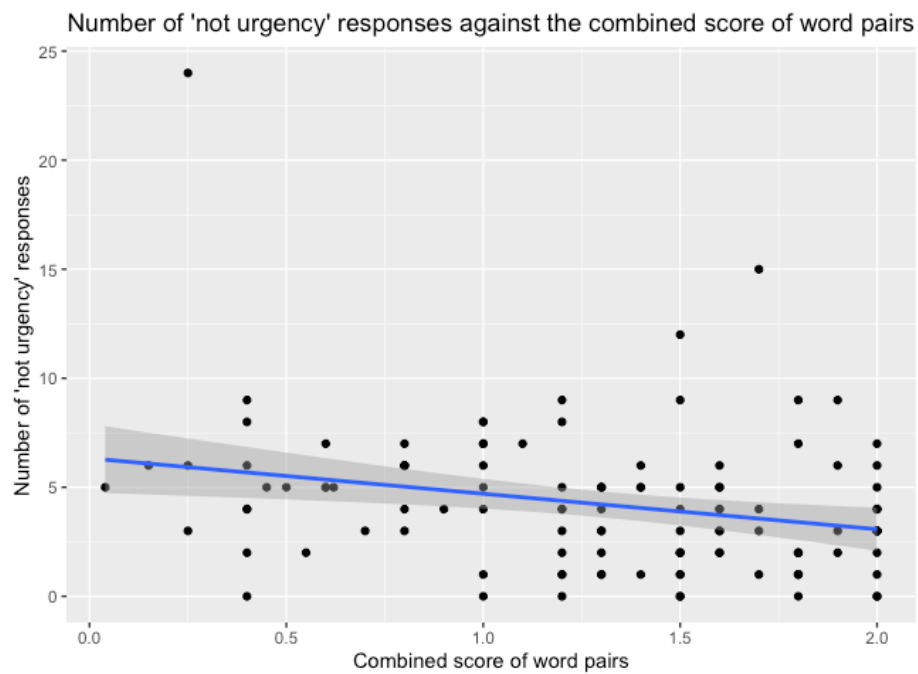
term	estimate	std.error	statistic	p.value	stat.sig	conf.low	conf.high	scaled
must	0.000	1.034	-5.311	0.000	*	-6.526	-4.458	1.000
is time to	-0.847	0.474	-1.788	0.074		-1.321	-0.373	0.945
have to	-0.924	0.407	-2.270	0.023	*	-1.331	-0.517	0.939
oblige	-1.013	0.488	-2.075	0.038	*	-1.501	-0.525	0.934
need to	-1.043	0.431	-2.419	0.016	*	-1.474	-0.612	0.932
going to	-1.642	0.578	-2.841	0.004	*	-2.220	-1.064	0.892
let's	-1.801	0.522	-3.451	0.001	*	-2.323	-1.279	0.882
ready to	-1.941	0.437	-4.441	0.000	*	-2.378	-1.504	0.873
should	-2.493	0.521	-4.782	0.000	*	-3.015	-1.972	0.837
want to	-2.579	0.470	-5.487	0.000	*	-3.049	-2.109	0.831
will	-2.653	0.540	-4.913	0.000	*	-3.193	-2.113	0.826
promise to	-2.837	0.505	-5.620	0.000	*	-3.342	-2.333	0.814
able	-3.063	0.842	-3.637	0.000	*	-3.906	-2.221	0.799
can	-5.642	0.945	-5.973	0.000	*	-6.587	-4.698	0.630
might	-6.103	1.527	-3.997	0.000	*	-7.630	-4.576	0.600
could	-7.044	1.048	-6.725	0.000	*	-8.092	-5.997	0.539
may	-7.633	1.344	-5.678	0.000	*	-8.977	-6.289	0.500
imperative	1.091	0.495	2.202	0.028	*	0.595	1.586	1.000
serious	0.790	0.583	1.355	0.175		0.207	1.373	0.974
essential	0.703	0.366	1.920	0.055		0.337	1.069	0.966
severe	0.575	0.873	0.659	0.510		-0.298	1.447	0.955
unavoidable	0.442	0.475	0.930	0.353		-0.033	0.916	0.943
best	0.119	0.751	0.159	0.874		-0.632	0.870	0.914
necessary	0.000	NA	NA	NA	NA	NA	NA	0.904
optimal	-0.280	0.698	-0.401	0.688		-0.978	0.418	0.879
important	-0.395	0.349	-1.130	0.259		-0.744	-0.045	0.869
invaluable	-0.800	0.404	-1.982	0.047	*	-1.204	-0.397	0.834
timely	-0.818	0.947	-0.863	0.388		-1.765	0.129	0.832
significant	-1.035	0.497	-2.082	0.037	*	-1.532	-0.538	0.813
better	-1.281	0.857	-1.494	0.135		-2.138	-0.424	0.791
willing	-1.526	0.724	-2.107	0.035	*	-2.250	-0.802	0.770
opportune	-1.567	1.050	-1.492	0.136		-2.617	-0.517	0.766
relevant	-1.596	0.597	-2.672	0.008	*	-2.193	-0.999	0.764
cautious	-1.688	1.037	-1.627	0.104		-2.725	-0.651	0.755
major	-1.882	1.235	-1.524	0.128		-3.117	-0.647	0.738
able	-2.037	0.955	-2.133	0.033	*	-2.992	-1.082	0.725
good	-2.043	0.523	-3.903	0.000	*	-2.567	-1.520	0.724
preferable	-2.056	0.749	-2.746	0.006	*	-2.805	-1.307	0.723
ideal	-2.057	0.487	-4.228	0.000	*	-2.544	-1.571	0.723
trivial	-2.226	1.096	-2.031	0.042	*	-3.323	-1.130	0.708
useful	-2.525	0.512	-4.931	0.000	*	-3.037	-2.013	0.682
great	-2.754	0.708	-3.893	0.000	*	-3.462	-2.047	0.662
ambiguous	-3.072	1.290	-2.382	0.017	*	-4.362	-1.782	0.634
ambivalent	-3.145	1.266	-2.484	0.013	*	-4.411	-1.879	0.627
optional	-3.280	1.063	-3.085	0.002	*	-4.343	-2.217	0.615
insignificant	-3.691	1.084	-3.405	0.001	*	-4.775	-2.607	0.579
possible	-4.590	1.036	-4.432	0.000	*	-5.625	-3.554	0.500

Table A11 – ranked estimates in *intensity* dimension

term	estimate	std.error	statistic	p.value	stat.sig	conf.low	conf.high	scaled
enough	3.970	1.455	2.729	0.006	*	2.516	5.425	1.000
enormous	3.296	1.495	2.205	0.027	*	1.801	4.790	0.966
maximum	3.045	1.518	2.005	0.045	*	1.526	4.563	0.953
completely	1.867	1.700	1.098	0.272		0.167	3.568	0.893
exceptional	1.846	0.921	2.003	0.045	*	0.924	2.767	0.891
extremely	1.223	0.871	1.405	0.160		0.353	2.094	0.860
strongly	1.170	1.718	0.681	0.496		-0.548	2.888	0.857
intensively	0.956	0.789	1.211	0.226		0.166	1.745	0.846
fully	0.936	1.035	0.905	0.366		-0.099	1.971	0.845
urgently	0.867	0.843	1.028	0.304		0.024	1.710	0.841
most	0.858	1.934	0.444	0.657		-1.076	2.792	0.841
very	0.430	0.851	0.505	0.614		-0.421	1.281	0.819
highly	0.430	0.764	0.562	0.574		-0.335	1.194	0.819
pervasive	0.289	0.784	0.368	0.713		-0.495	1.073	0.812
extra	0.219	0.884	0.248	0.804		-0.665	1.103	0.808
determined	0.130	1.731	0.075	0.940		-1.600	1.861	0.804
insufficient	0.091	0.900	0.101	0.919		-0.809	0.991	0.802
especially	0.000	0.855	1.506	0.132		0.433	2.143	0.797
firmly	-0.265	1.868	-0.142	0.887		-2.133	1.603	0.784
extensive	-0.347	0.497	-0.699	0.485		-0.844	0.149	0.779
unmatched	-0.390	0.795	-0.490	0.624		-1.185	0.406	0.777
definitely	-0.399	0.721	-0.554	0.580		-1.120	0.322	0.777
really	-0.762	0.679	-1.123	0.262		-1.441	-0.083	0.758
above	-0.842	1.076	-0.782	0.434		-1.918	0.235	0.754
ambitious	-0.905	1.525	-0.594	0.553		-2.430	0.620	0.751
more	-0.930	0.756	-1.229	0.219		-1.686	-0.174	0.750
substantially	-0.949	1.477	-0.642	0.521		-2.426	0.528	0.749
limited	-1.099	0.641	-1.715	0.086		-1.739	-0.458	0.741
certainly	-1.106	0.700	-1.579	0.114		-1.806	-0.405	0.741
simply	-1.150	0.748	-1.538	0.124		-1.897	-0.402	0.738
remarkable	-1.259	1.656	-0.760	0.447		-2.915	0.397	0.733
clear	-1.495	1.578	-0.948	0.343		-3.073	0.082	0.721
nearly	-1.744	0.850	-2.051	0.040	*	-2.594	-0.893	0.708
modest	-1.774	0.593	-2.993	0.003	*	-2.367	-1.181	0.706
rather	-1.801	0.759	-2.374	0.018	*	-2.560	-1.042	0.705
realistic	-1.816	1.471	-1.234	0.217		-3.287	-0.345	0.704
intense	-1.825	1.081	-1.688	0.092		-2.906	-0.743	0.704
quite	-1.872	0.856	-2.187	0.029	*	-2.728	-1.016	0.701
low	-1.879	0.755	-2.489	0.013	*	-2.634	-1.124	0.701
barely	-1.930	1.104	-1.748	0.080		-3.034	-0.826	0.698
almost	-2.382	0.832	-2.862	0.004	*	-3.214	-1.550	0.675
globally	-2.819	1.689	-1.669	0.095		-4.508	-1.130	0.653
reasonably	-2.856	1.449	-1.971	0.049	*	-4.304	-1.407	0.651
adequately	-3.067	1.718	-1.785	0.074		-4.786	-1.349	0.640
moderately	-3.400	0.883	-3.852	0.000	*	-4.282	-2.517	0.623
average	-3.483	1.589	-2.192	0.028	*	-5.071	-1.894	0.619
everywhere	-3.566	1.581	-2.255	0.024	*	-5.147	-1.985	0.615
somewhat	-3.788	1.635	-2.316	0.021	*	-5.423	-2.152	0.604
practically	-4.063	1.637	-2.482	0.013	*	-5.699	-2.426	0.589
slightly	-4.162	1.114	-3.737	0.000	*	-5.275	-3.048	0.584
minimal	-4.926	1.142	-4.314	0.000	*	-6.067	-3.784	0.545
little	-5.813	1.320	-4.402	0.000	*	-7.134	-4.493	0.500

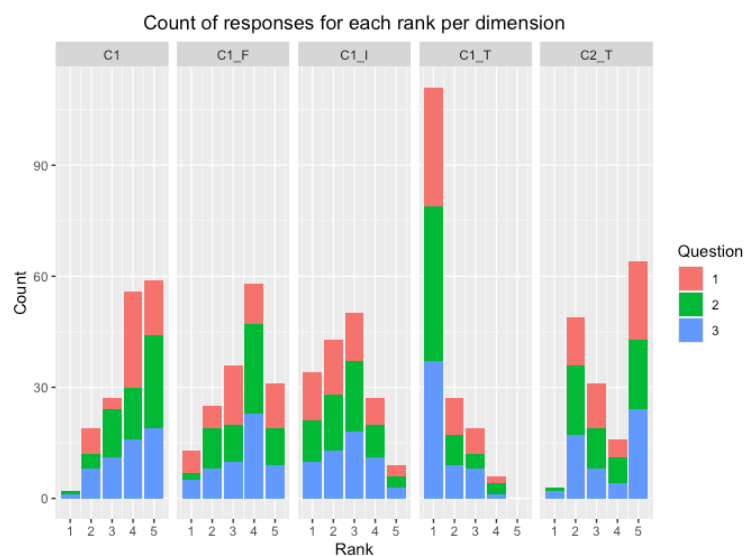


Figure A8 – Number of ‘not urgency’ responses against the combined score of word pairs



Half the respondents were also presented with the option to indicate that any difference between the options was not due to urgency. Figure A8 above shows the number of responses that selected the third option, ‘The difference between these options is not related to urgency’, plotted against the combined original score of word pairs that were compared. While there is some variation in the number of responses, especially as the combined original score increases, there is a general trend that the lower the combined original score of the word pairs, the higher the number of responses that selected the third option.

Figure A9 – Count of survey responses for each rank per dimension per question



To compare the relative importance of the dimensions, survey participants were presented with a sentence ranking question at the end of the survey. Figure A9 illustrates the number of survey responses for each possible rank for the five sentences that were provided. The sentence ‘C1\_T’ that included the words ‘must’ and ‘now’ from the *commitment* and *timing* dimensions respectively was clearly preferred as the most urgent sentence by survey participants.