Technical appendix for "Discourses About Wildfire in New Jersey and New South Wales" Q Method Data

Part A: Factor Q sort values

Values in the tables represent the ranks of each statement in an idealized Q sort representing that factor. Letters in parentheses after each statement represent the a priori assignment of each statement to a GGCT worldview (I = Individualist, F = Fatalist, H = Hierarchist, E = Egalitarian). Words in parentheses within the statement show wording changes between New Jersey and New South Wales. Shaded columns are the New South Wales discourses, unshaded columns are New Jersey discourses.

Statement No.	A	B	C	D	E	F	G	H	I
1. Insurance (rates/premiums) should be higher for people whose homes are not fire safe (I)	-2	0	-2	4	-1	-1	0	0	-2
2. The media should sensationalize (forest/bush)fires a bit, in order to get people's attention (F)	-4	-3	-5	2	-4	-5	2	-3	-5
3. The (Forest Fire Service/Rural Fire Service) should hold educational programs (H)	2	2	1	3	1	0	2	4	3
4. The (Forest Fire Service/Rural Fire Service) should talk to residents to get their knowledge and perspective (E)	0	1	3	1	1	0	3	0	3
5. Scientific information about (forest/bush) fires should be easily available, so that people can make up their own minds about the risks (I)	0	0	0	-1	-1	-2	2	-1	1
6. Science will never fully understand (forest/bush)fires (F)	-2	-2	-4	1	-2	-2	1	-2	-2
7. Fire policy should be based on the best science available (H)	2	4	3	1	5	1	-1	4	4
8. We should learn from (Native Americans/Aborigines) how to manage fire (E)	-3	0	1	2	-2	1	-3	-4	0
9. People who do controlled burns responsibly should not be able to be sued if there is an accident (I)	0	-2	1	-5	2	3	-4	-1	-1
10. Controlled burning should be avoided because burns often escape from control (F)	-3	-4	2	-3	-5	-4	-5	-3	-4
11. Controlled burning should only be done under the safest conditions (H)	4	0	-1	2	0	2	5	1	-1
12. Controlled burning should try to mimic the natural fire regime of the area (E)	0	-1	-1	-2	4	0	0	-2	2
13. Farming, logging, and other land use can be relied on to reduce the fire danger (I)	-1	-3	-2	-4	-3	-3	-2	-5	-2
14. I shouldn't be expected to spend all my time worrying about fire, because I'm busy with other things that are important to me (F)	-4	-1	0	2	-1	-2	-4	-2	-5
15. There should be building codes that require homes to be fire-safe (H)	1	2	1	2	2	3	-2	2	0
16. People have a responsibility to the community to reduce the fire risk on their property (E)	2	3	2	3	0	5	1	3	5
17. Fire safety shouldn't come at the expense of lowering the value and beauty of my home (I)	-2	-4	-1	-2	-4	-3	-1	-1	-3
18. I shouldn't have to spend so much time and money on making my home fire-safe (F)	-4	-2	2	-2	-4	-5	-2	-2	-4
19. If someone's property presents a fire risk to their neighbors, the authorities should make them fix it (H)	1	1	-1	5	0	4	0	0	1
20. The (Forest Fire Service/Rural Fire Service) should inform the public about what they're doing and why they're doing it (E)	3	1	2	1	2	2	2	3	1

Statement No.	A	B	C	D	E	F	G	H	I
21. Individual property owners should have the right to decide how to balance the risks and costs of fire safety (I)	-2	-2	-1	-5	-3	-4	0	-4	-3
22. It's smart to prepare your own home and family for a fire, rather than relying on other people (F)	5	2	-1	4	1	4	4	2	4
23. Fire management in this state should be centralized (H)	-1	-1	-2	-5	0	-1	-3	2	-4
24. Fire management should be coordinated at the neighborhood or town level (E)	0	1	0	-2	-3	0	0	3	-1
25. Measures to reduce the fire risk should focus on areas closest to people's homes (I)	1	-1	2	-1	3	0	2	1	1
26. Nobody in this region should assume that because of where they live, they're safe from fire (F)	3	1	3	1	-1	2	0	1	-1
27. Some parts of the environment should be protected from any fires (H)	-2	1	0	-4	-2	-1	-4	-1	1
28. Controlled burning should be done in small patches, rather than burning large areas all at once (E)	2	2	-3	-2	-2	0	-4	0	1
29. People should be able to build houses wherever they want (I)	-5	-5	-4	-3	-5	-5	-2	-5	-5
30. If you live in this area, you just have to accept a certain level of risk from fires (F)	-1	2	0	-1	0	-1	1	1	2
31. New housing developments should be restricted in order to reduce the fire risk (H)	-1	0	3	-1	2	-1	1	-1	0
32. People should understand the fire risk before moving to this region (E)	0	-2	0	1	0	2	-2	0	1
33. You should stay in your house when a fire is nearby to help to save it (I)	-5	-5	5	0	-5	1	-5	-2	0
34. When a fire is approaching, you should evacuate quickly (F)	5	1	5	2	0	-4	3	-1	-3
35. Once a fire breaks out, the (Forest Fire Service/Rural Fire Service) should have complete command of the situation (H)	1	-1	-5	0	1	2	-2	5	-1
36. Trust between firefighters and the rest of the community should be encouraged (E)	1	4	0	0	1	3	5	2	2
37. Fire management should not be political (I)	1	4	-1	5	5	4	-1	2	1
38. Even with the best policies and practices, it's impossible to stop a really bad fire once it's burning (F)	-2	-2	-2	-1	-2	-2	-1	1	0
39. Unplanned fires should be quickly suppressed (H)	0	3	-5	3	-1	1	1	0	0
40. Nature should be allowed to take its course without human interference where it's feasible (E)	-3	-5	4	1	4	-2	-2	-3	-2
41. Bureaucratic and legal barriers that inhibit fire management should be lowered (I)	-1	3	-3	-2	3	0	-1	1	-1
42. People should be able to rely on the (Forest Fire Service/Rural Fire Service) to protect their home and the environment (F)	1	1	1	0	0	-1	1	-1	-2
43. The state should provide lots of money for fire management (H)	-1	-3	-3	-1	-1	-1	-2	2	-1
44. All stakeholders should be involved in making decisions about local fire management (E)	-3	2	0	-1	-1	-2	1	0	3
45. Off-road vehicles should be restricted, because they can cause fires (I)	-1	0	-3	0	-1	-3	-5	-4	-2
46. There's no way to stop arsonists – they're just crazy (F)	-5	-4	-1	-3	-3	-3	-3	-5	-3
47. During fire season, activities that might start a fire should be banned or require a permit (H)	3	0	-2	0	1	5	3	1	2

Statement No.	A	B	C	D	E	F	G	H	I
48. We should be able to count on people in this region to be pretty responsible when it comes to handling things like campfires that could start a (forest/bush) fire (E)	3	-3	1	0	-2	1	3	-3	-1
49. It's important to gather data on the condition of the land and the success of fire management (I)	0	0	-2	3	2	0	0	3	3
50. People should change their lifestyles to accommodate our naturally fire-prone environment (F)	-1	-1	-4	5	1	-1	-1	-2	0
51.Detailed fire management plans should be in place for all large wild areas, such as (State Forests/National Parks) (H)	2	5	4	1	3	3	3	5	4
52. Fire management should be tailored to the specific local situation (E)	2	3	1	0	2	2	0	4	2
53. Protecting human life should be a priority	5	5	5	4	5	5	5	5	5
54. Protecting property should be a priority	4	-1	4	-4	1	1	0	1	0
55. Protecting the environment should be a priority	4	-1	2	-1	4	1	4	0	5
56. Human safety and environmental health should not be at odds in fire management	1	5	1	-3	3	1	2	-1	2

Table A-1. Normative discourses.

Statement No.	R	S	T	U	V	W	X	Y	Z
1. Insurance (rates/premiums) are higher for people whose homes are not fire safe (I)	-3	-3	-3	-1	-2	-3	-1	-1	2
2. The media sensationalizes (forest/bush) fires (F)	5	3	3	-1	-3	4	2	0	-3
3. The (Forest Fire Service/Rural Fire Service) holds good educational programs (H)	-1	0	-1	1	0	0	2	2	0
4. The (Forest Fire Service/Rural Fire Service) talks to residents to get their knowledge and perspective (E)	-1	0	-3	1	-1	-1	-2	-4	1
5. Scientific information about (forest/bush) fires is easily available, so that people can make up their own minds about the risks (I)	-4	-1	-4	-2	-4	-1	0	0	-1
6. Scientists do not fully understand (forest/bush) fires (F)	0	1	1	-1	-2	1	1	-1	4
7. Fire policy is based on the best science available (H)	-1	2	-1	1	0	-1	1	4	0
8. Our current fire policy is based on the way (Native Americans/Aborigines) use fire (E)	-2	-2	-5	-5	-3	-5	-1	-2	-4
9. People who do controlled burns responsibly cannot be sued if there is an accident (I)	2	-2	2	0	-2	-3	0	-1	-2
10. Controlled burns often escape from control (F)	-2	1	5	-4	-4	-5	-3	-3	-5
11. Controlled burning is only done under the safest conditions (H)	1	1	1	0	1	4	3	2	-1
12. Controlled burning mimics the natural fire regime of the area (E)	0	-2	-1	-1	1	-4	2	-1	1
13. Farming, logging, and other land use reduce the fire danger (I)	-1	2	3	-4	-1	0	1	-5	1
14. I don't spend all my time worrying about fire, because I'm busy with other things that are important to me (F)	-2	0	0	3	-3	1	-1	3	1
15. There are building codes that require homes to be fire-safe (H)	3	1	0	3	5	2	1	5	0
16. People recognize that they have a responsibility to the community to reduce the fire risk on their property (E)	-2	0	1	2	0	-2	0	1	2

Statement No.	R	S	T	U	V	W	X	Y	Z
17. Fire safety can be achieved without lowering the value and beauty of my home (I)	1	2	1	3	2	3	4	2	2
18. Making my home fire-safe is too expensive and time-consuming (F)	-5	-3	0	-5	-5	1	-3	-3	-5
19. If someone's property presents a fire risk to their neighbors, the authorities will make them fix it (H)	-2	4	-5	-1	0	-3	0	-2	-1
20. The (Forest Fire Service/Rural Fire Service) informs the public about what they're doing and why they're doing it (E)	1	3	-1	0	0	-1	0	0	-2
21. Individual property owners are able to decide how to balance the risks and costs of fire safety (I)	-4	-1	1	-2	-4	0	1	-1	-2
22. You can't rely on other people to keep you safe from fire (F)	-3	5	3	1	-3	2	2	2	-2
23. Fire management in this state is centralized (H)	3	0	1	1	-1	2	-2	-2	3
24. Fire management is coordinated at the neighborhood or town level (E)	0	-1	-1	0	1	1	4	4	0
25. Measures to reduce the fire risk focus on areas closest to people's homes (I)	4	3	4	2	0	2	2	1	0
26. A major fire could strike anywhere (F)	2	0	3	5	5	4	-1	5	5
27. Some parts of the environment are protected from any fires (H)	-2	-1	-2	-3	-1	0	-2	3	-4
28. Controlled burning is done in small patches, rather than burning large areas all at once (E)	2	1	4	1	1	3	3	0	2
29. People are allowed to build houses wherever they want (I)	-5	-5	0	-4	-5	5	-4	-5	5
30. People in this area recognize that living here brings a certain level of risk from fires (F)	3	1	4	2	2	1	-1	1	2
31. New housing developments are restricted in order to reduce the fire risk (H)	0	-1	1	-3	2	-2	-2	-5	0
32. People moving here from other places understand the fire risk (E)	-3	-4	-3	-1	1	-4	-4	0	-2
33. Most people stay in their houses when a fire is nearby (I)	4	-2	2	-2	-5	1	-3	1	-3
34. When a fire is approaching, I would evacuate quickly (F)	-5	-5	-4	0	4	3	5	3	4
35. Once a fire breaks out, the (Forest Fire Service/Rural Fire Service) has complete command of the situation (H)	1	1	-2	2	1	3	1	-4	-1
36. There is a lot of trust between firefighters and the rest of the community (E)	4	5	2	5	5	1	5	2	0
37. Fire management is not political (I)	1	-5	-5	-3	-1	0	-5	-1	2
38. The way fires are currently handled, it's impossible to stop a really bad fire once it's burning (F)	0	3	-2	-5	-1	1	-2	-1	-5
39. Unplanned fires are quickly suppressed (H)	1	-1	0	-2	4	2	2	-1	-4
40. Nature is allowed to take its course without human interference where it's feasible (E)	-1	2	-2	-1	-1	-3	-2	3	-1
41. There are few bureaucratic and legal barriers that inhibit fire management (I)	-1	-4	2	-1	-2	-2	-1	-2	-1
42.People can rely on the (Forest Fire Service/Rural Fire Service) to protect their home and the environment (F)	3	-1	1	4	3	0	-4	2	1
43. The state provides lots of money for fire management (H)	0	-2	-2	-2	0	-2	-5	-4	3
44. All stakeholders are involved in making decisions about local fire management (E)	-3	2	-4	-2	-2	-5	-5	-3	3
45. Careless use of off-road vehicles is a major cause of fires (I)	-4	-4	0	-3	-2	-1	0	1	5

Statement No.	R	S	T	U	V	W	X	Y	Z
46. Arson is a major cause of fire (F)	2	4	5	4	1	5	-3	0	-1
47. During fire season, activities that might start a fire are banned or require a permit (H)	5	5	5	4	3	5	3	4	1
48. People in this region are pretty responsible when it comes to handling things like campfires that could start a (forest/bush) fire (E)	2	-1	-3	0	2	-1	3	-2	3
49. Lots of data is gathered on the condition of the land and the success of fire management (I)	0	0	-1	1	0	-2	-1	1	1
50. People in this area have adapted to living in a naturally fire-prone environment (F)	-1	-3	2	1	3	-2	0	0	-3
51. Detailed fire management plans are in place for all large wild areas, such as (State Forests/National Parks) (H)	0	4	-2	3	2	0	0	0	4
52. Fire management is tailored to the specific local situation (E)	1	0	-1	2	-1	-1	4	5	1
53. Human life is well protected	5	2	2	5	4	2	5	1	-1
54. Property is well protected	2	-3	0	0	2	0	-1	-3	0
55. The environment is well protected	-1	-2	-1	0	3	-4	1	-2	-2
56. Human safety and environmental health are not at odds in fire management	1	1	0	2	1	-1	1	1	-3

Table A-2. Descriptive discourses.

Part B: Factor loadings
Bold entries indicate that that sort defines that factor.

Sorter	A	B	C	D	E
1	0.0365	**0.6507**	-0.2255	0.1210	0.3098
2	0.3080	0.2694	0.0178	-0.1476	**0.6862**
3	0.2050	0.1527	0.1226	0.1758	**0.7836**
4	0.3548	**0.4517**	0.3622	0.4185	0.3013
5	**0.5681**	0.4193	0.0808	0.3348	0.1312
6	0.0805	0.2066	0.0768	**0.6289**	0.2267
7	**0.7843**	0.1265	0.1610	-0.0989	0.0439
8	**0.7364**	0.3197	0.1446	0.2515	0.1275
9	**0.7721**	0.2650	-0.0538	-0.0841	0.3296
10	**0.5551**	0.2019	-0.4533	0.2013	-0.0965
11	**0.6730**	0.1801	0.0885	-0.0374	0.3732
12	0.4323	0.4526	-0.1977	0.1461	**0.4998**
13	**0.5447**	0.1679	0.3123	-0.1233	0.5185
14	0.2186	**0.7441**	0.0620	0.1300	0.3312
15	0.2302	**0.7837**	0.0065	0.1651	0.3191
16	0.4637	0.1182	0.3791	0.2460	**0.5416**
17	**0.6750**	0.1207	0.0731	0.2371	0.2793
18	0.4462	**0.5475**	-0.1550	0.0740	0.1601

Sorter	A	B	C	D	E
19	**0.6594**	0.1127	-0.2012	0.1490	0.4482
20	0.1281	0.2490	0.1390	0.1376	**0.7783**
21	0.0009	-0.0034	0.0116	**0.6918**	-0.1128
22	**0.6137**	0.1335	0.3724	0.2729	0.1970
23	0.1831	0.0105	**0.7881**	0.0737	0.2030
24	0.2409	**0.6357**	0.3424	-0.0216	-0.1455
	0.2745	0.2573	-0.4099	**0.5615**	0.3035

Table B-1: New Jersey normative sorts

Sorter	V	W	X	Y	Z
1	0.0410	**0.6220**	0.0115	-0.2706	0.2120
2	0.1183	**0.7810**	-0.1329	-0.0662	-0.0831
3	0.2765	**0.5977**	0.2240	0.2179	-0.0718
4	**0.6200**	0.2300	0.4273	0.0109	0.2562
5	0.2056	-0.0468	**0.6575**	0.1641	-0.2003
6	-0.0556	0.1000	0.1094	**0.5641**	0.5053
7	0.4476	0.1865	**0.5309**	0.0745	0.0754
8	**0.8055**	-0.0404	0.3129	0.0994	-0.1232
9	0.2229	-0.0985	**0.6116**	0.3514	0.0759
10	0.0317	0.0683	**0.7056**	-0.1079	-0.0522
11	0.1954	0.4429	**0.5353**	0.1014	0.2118
12	0.2979	0.2739	0.3365	**0.4415**	-0.2250
13	**0.5982**	0.3144	0.0079	0.0883	0.1219
14	0.0429	**0.6627**	0.3744	0.2543	0.1640
15	0.2412	0.0111	-0.0226	**0.6750**	0.1217
16	-0.1453	0.2944	**0.6259**	0.2035	0.1672
17	**0.7368**	0.2223	0.0586	0.0602	-0.0875
18	0.2375	-0.0771	0.1881	**0.5779**	-0.0924
19	**0.6526**	-0.0852	0.4319	-0.1721	0.2701
20	0.0409	**0.5217**	0.3349	0.3154	0.0503
21	**0.4558**	0.1306	-0.1801	0.1434	-0.4351
22	**0.7233**	0.0137	-0.0251	0.2404	0.0932
23	-0.0756	0.2724	0.2058	**0.4512**	-0.1846
24	0.2319	0.1805	-0.0636	-0.0026	**0.7518**
25	-0.1972	0.4116	-0.1524	0.3669	0.0058

Table B-2: New Jersey descriptive sorts

Sorter

Sorter	F	G	H	I
1	0.3017	0.3390	0.2073	**0.5888**

Sorter	F	G	H	I
2	0.4223	0.1722	0.3863	**0.4979**
3	**0.5275**	0.1927	0.1032	0.4136
4	**0.6996**	0.2107	0.2818	0.3473
5	**0.6493**	0.2346	0.2503	0.2677
6	0.4440	0.0066	**0.6056**	0.3538
7	**0.5954**	0.1340	0.3337	0.3777
8	**0.6888**	0.1155	0.1981	0.4014
9	**0.7276**	0.1700	0.3651	0.2013
10	0.0267	0.0217	0.1610	**0.7610**
11	-0.0102	0.2454	**0.7981**	0.2651
12	0.1490	0.4895	0.2101	**0.4595**
13	**0.5319**	0.2494	0.4615	0.2243
14	0.3674	0.3511	0.0712	**0.6841**
15	**0.6415**	-0.3910	0.1624	0.1043
16	**0.5143**	-0.0030	**0.4787**	0.3334
17	0.2507	0.1787	**0.7522**	0.2016
18	0.3883	0.4105	0.2092	**0.5498**
19	**0.5301**	0.2913	0.1259	0.4754
20	0.4242	-0.0275	**0.5700**	-0.1551
21	0.0965	**0.8375**	0.1716	0.1057
22	0.1096	**0.7085**	0.0616	0.2201
23	0.4742	-0.0354	0.2160	**0.5527**
24	0.3931	0.3618	0.0730	**0.4870**
25	0.1797	0.1456	0.1748	**0.6859**
26	**0.7121**	0.3052	0.0632	-0.0533
27	0.4732	0.0576	**0.5393**	0.3726
	0.5838	0.0216	0.1502	0.2506

Table B-3: New South Wales normative sorts

Sorter	R	S	T	U
1	0.3207	**0.4894**	0.0214	0.1695
2	0.1831	**0.6258**	0.1474	0.1268
3	0.4075	**0.5071**	0.0535	0.2738
4	**0.4971**	0.4544	-0.0024	0.2933
5	**0.6537**	0.2857	-0.2383	0.2706
6	-0.0624	0.1680	**0.5806**	-0.0687
7	0.2553	0.1896	-0.0549	**0.6314**
8	**0.5085**	-0.0620	0.2334	0.3415
9	**0.6309**	-0.0481	0.1826	0.4012

Sorter	R	S	T	U
10	0.4051	0.2253	0.3422	0.1367
11	0.2812	0.0633	0.2839	**0.4723**
12	0.0470	**0.4490**	0.2837	0.1094
13	0.2057	0.2811	0.4028	0.3716
14	0.1596	**0.7497**	-0.1441	0.0538
15	0.4975	0.3847	0.3435	0.1318
16	0.0651	-0.0180	**0.4711**	0.3663
17	0.1890	0.0367	0.3189	**0.4642**
18	0.1521	0.2090	0.0625	**0.7836**
19	-0.1152	0.3953	**0.5197**	0.1771
20	**0.6115**	0.2058	0.1451	0.0722
21	0.0451	0.3023	0.1641	**0.6355**
22	-0.4703	0.2764	0.1647	**0.4814**
23	-0.1402	**0.6840**	0.2853	0.0444
24	0.2604	-0.0941	**0.5620**	0.1954
25	**0.4682**	0.0790	0.0168	0.0716
26	**0.5231**	0.2765	**0.5039**	-0.1085
27	0.4978	0.2381	-0.2236	**0.5362**
	0.1519	**0.4394**	0.0660	0.2425

Table B-4: New South Wales descriptive sorts