

What do philosophers believe?

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Abstract What are the philosophical views of contemporary professional philosophers? We surveyed many professional philosophers in order to help determine their views on 30 central philosophical issues. This article documents the results. It also reveals correlations among philosophical views and between these views and factors such as age, gender, and nationality. A factor analysis suggests that an individual's views on these issues factor into a few underlying components that predict much of the variation in those views. The results of a metasurvey also suggest that many of the results of the survey are surprising: philosophers as a whole have quite inaccurate beliefs about the distribution of philosophical views in the profession.

Keywords Metaphilosophy · Disagreement · Survey · Correlations · Philosophy · PhilPapers

1 Introduction

What are the philosophical views of contemporary professional philosophers? Are more philosophers theists or atheists? Physicalists or non-physicalists? Deontologists, consequentialists, or virtue ethicists? We surveyed many professional philosophers in order to help determine the answers to these and other questions. This article documents the results.

Why should the answers to these sociological questions be of interest to philosophers or to anyone else? First, they have obvious sociological and historical

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interest. Philosophy as practiced is a human activity, and philosophers have a strong interest in the character of this human activity, past and present. Historians of philosophy are interested in the dominant philosophical views of various eras and in how these views changed over time. Contemporary philosophy can be seen as the leading edge of the history of philosophy, and a proper understanding of today's philosophical views can feed into an understanding of historical trends. Furthermore, today's sociology is tomorrow's history, and one can reasonably hope that answers to these sociological questions will be of some use to the historians of the future.

Second, one could argue that these sociological facts can play an evidential role in answering philosophical questions. On this view, the prevalence of views among philosophers can serve as a guide to their truth. After all, philosophers have had the benefit of years of reflection on these questions and might be taken as experts on them. In science, we often take the prevalence of scientific views among experts as strong evidence about which views are correct: consider questions about evolution or climate change, for example. It could be suggested that expert views should play a similar role with respect to philosophical questions. Many will be skeptical about this analogy, however. It is arguable that there is less convergence over time in philosophy than in science, for example. So we do not make the evidential claim here.

Third, it is clear that sociological views play a methodological role within the practice of philosophy. In philosophical discussion it is inevitable that some views are presupposed and other views are the focus of attention and argument, while still others are ignored. At a given time in a given community, some views have the status of "received wisdom". These views are often used as premises of arguments, and if they are rejected, it is usually acknowledged that doing so requires argument. Other views are often ignored or set aside without argument. When they are acknowledged, they are rarely used as premises of arguments. To assert them requires considerable justification.

One might suggest that the received wisdom within a given community is determined by what most people in the community believe: views that are widely accepted require less argument than views that are widely rejected. A moment's reflection, however, suggests that received wisdom is more likely to be determined by what most people believe most people believe. If most members of a community mistakenly believe that most members believe p , then it is more likely that assertions of p rather than assertions of $\neg p$ will receive default status. If most philosophers believe that most philosophers are physicalists when in fact most philosophers are dualists, for example, then the norms of the community will typically require that asserting dualism requires more argument than asserting physicalism.

Insofar as sociological beliefs play this role within philosophy, it is better for them to be accurate. For example: suppose that a philosopher accepts the analytic–synthetic distinction and thinks the arguments against it fail. Suppose that she is writing an article in which she thinks that (sociology aside) an appeal to the distinction would strengthen the article. Suppose that she nevertheless does not appeal to the distinction in the article, solely on the grounds that she thinks a large majority of philosophers reject the distinction. Suppose that in fact, a large majority

of philosophers accept the distinction. Then her decision will have been grounded in a false sociological belief, and the article will be weaker by her own lights as a result. True sociological beliefs would put her in a position to write a better article by her own lights.

Spurred by this sociological, historical, and methodological interest, we conducted a survey of the views of professional philosophers in late 2009. The PhilPapers Survey surveyed professional philosophers worldwide about their views on 30 key philosophical questions. We also surveyed them on demographic questions concerning gender, age, nationality, and areas of specialization. This allows more reliable answers than previously available about the views of professional philosophers and about how they vary with the various demographic factors, yielding a richer picture of the philosophical character of the contemporary philosophical community.

We simultaneously conducted the PhilPapers Metasurvey, asking philosophers for their predictions about the distribution of answers to the PhilPapers Survey. This metasurvey allowed us to measure the accuracy of philosophers' sociological beliefs about views within the field. It also provides a measure of just how surprising or unsurprising are the results of the PhilPapers Survey. To foreshadow the results that follow, we found that many of the results are quite surprising, both on an individual and a community level. The sociological beliefs of individual philosophers are typically quite inaccurate, and the community as a whole substantially overestimates or underestimates the popularity of a number of important philosophical positions. By rectifying these inaccurate sociological beliefs, the PhilPapers Survey provides a useful corrective to those aspects of the practice of philosophy that are grounded in them.

It should be noted that this study is not a traditional work of philosophy: for the most part, we are not putting forward philosophical theses or arguing for them. It is also not a work of science. We are not putting forward scientific hypotheses or testing them. Instead it is a data-gathering exercise in the sociology of philosophy. That said, we do not exclude the possibility, that the sociological data we have gathered might be used as inputs to philosophical or to scientific work in the future.

2 Setup and methodology

The PhilPapers Survey was conducted online from 8 November 2009 to 1 December 2009. The Metasurvey began immediately after the survey and ended on 8 December 2009. We begin by describing the setup and methodology of the survey and the Metasurvey. We then describe and discuss the main results of the two surveys.

2.1 Survey population

Ideally, a survey such as this one would be sent to every professional philosopher in the world. However, it is not easy to determine just who is in this group and to

gather contact details for the group. National philosophical associations typically do not give out contact details for their members, for example.

Instead, we chose as a target group all regular faculty members in 99 leading departments of philosophy. These include the 89 PhD-granting departments in English-speaking countries rated 1.9 or above in the *Philosophical Gourmet Report*. They also include seven departments in non-English-speaking countries (all from continental Europe) and three non-PhD-granting departments. These 10 departments were chosen in consultation with the editor of the *Gourmet Report* and a number of other philosophers, on the grounds of their having strength in analytic philosophy comparable to the other 89 departments. The overall list included 62 departments in the USA, 18 in the UK, 7 in Europe outside the UK, 7 in Canada, and 5 in Australasia.

It should be acknowledged that this target group has a strong (although not exclusive) bias toward analytic or Anglocentric philosophy. As a consequence, the results of the survey are a much better guide to what analytic/Anglocentric philosophers (or at least philosophers in strong analytic/Anglocentric departments) believe than to what philosophers from other traditions believe. We conceived of the survey that way from the start, in part because that is where our own expertise lies. It is also not clear how much can be learned by requiring (for example) specialists in Anglocentric philosophy to answer questions drawn from Asian philosophy or vice versa. Furthermore, attempting full representation of philosophers worldwide from all traditions would require linguistic resources and contact details that were unavailable to us.

To determine the membership of the target group, we used faculty lists drawn from the *Gourmet Report*, supplemented with information from department websites. The final target group included 1,972 philosophers. A research assistant compiled email addresses from departmental websites. Every member of the target group was sent an initial email invitation to take the survey, followed by additional email requests after 1 and 2 weeks if they had not yet responded.

In addition to inviting the target group, we allowed anyone to take the survey, including professional philosophers from other departments, students, and others. The survey was advertised to all registered PhilPapers users (approximately 15,000 users at the time) through one direct email announcement, and was also announced on the PhilPapers website and in other places on the web. This group is less well-controlled than the target group, however, so we concentrate mainly on results from the target group in what follows.

2.2 Main questions and survey interface

The main part of the PhilPapers Survey consisted of 30 philosophical questions plus additional background questions. Each of the 30 philosophical questions was presented along with multiple choice answers as shown in Fig. 1.

The 30 philosophical questions asked, and the answers proposed, were the following:

Mind: non-physicalism or physicalism?

Accept: non-physicalism

Lean toward: non-physicalism

Accept: physicalism

Lean toward: physicalism

Other

Comment (optional but appreciated):

Or: [Skip this question](#)

Fig. 1 Example question screen

- (1) A priori knowledge: yes or no?
- (2) Abstract objects: Platonism or nominalism?
- (3) Aesthetic value: objective or subjective?
- (4) Analytic–synthetic distinction: yes or no?
- (5) Epistemic justification: internalism or externalism?
- (6) External world: idealism, skepticism, or non-skeptical realism?
- (7) Free will: compatibilism, libertarianism, or no free will?
- (8) God: theism or atheism?
- (9) Knowledge: empiricism or rationalism?
- (10) Knowledge claims: contextualism, relativism, or invariantism?
- (11) Laws of nature: Humean or non-Humean?
- (12) Logic: classical or non-classical?
- (13) Mental content: internalism or externalism?
- (14) Meta-ethics: moral realism or moral anti-realism?
- (15) Metaphilosophy: naturalism or non-naturalism?
- (16) Mind: physicalism or non-physicalism?
- (17) Moral judgment: cognitivism or non-cognitivism?
- (18) Moral motivation: internalism or externalism?
- (19) Newcomb’s problem: one box or two boxes?
- (20) Normative ethics: deontology, consequentialism, or virtue ethics?
- (21) Perceptual experience: disjunctivism, qualia theory, representationalism, or sense-datum theory?
- (22) Personal identity: biological view, psychological view, or further-fact view?
- (23) Politics: communitarianism, egalitarianism, or libertarianism?
- (24) Proper names: Fregean or Millian?

- (25) Science: scientific realism or scientific anti-realism?
- (26) Teletransporter (new matter): survival or death?
- (27) Time: A- or B-theory?
- (28) Trolley problem (five straight ahead, one on side track, turn requires switching, what ought one do?): switch or don't switch?
- (29) Truth: correspondence, deflationary, or epistemic?
- (30) Zombies: inconceivable, conceivable but not metaphysically possible, or metaphysically possible?

The order in which the questions were presented was randomized for each respondent. The order in which the answer options were presented was also randomized.

Respondents could indicate that they “accept” or “lean toward” any of the options mentioned in the question (see Fig. 1). They could also choose one of a number of other responses or could skip the question using a link provided. These additional possible responses were as follows (with minor variations for non-binary questions¹):

- Accept both,
- Reject both,
- Accept an intermediate view,
- Accept another alternative,
- The question is too unclear to answer,
- There is no fact of the matter,
- Insufficiently familiar with the issue,
- Agnostic/undecided,
- Other.

The questions and the response options were determined by three rounds of beta testing with about 50 philosophers from various fields in the weeks before the survey was conducted. The questions focus on widely discussed topics within analytic philosophy. (It was apparent from an early stage that Continental philosophy does not lend itself easily to the survey format.) We decided on the format involving brief labels for three reasons. First, spelling out the views at more length would require many more arbitrary choices on the part of the survey designers. Second, although many of these labels are ambiguous, longer descriptions would introduce new ambiguities in turn. Third, it was inevitable that the results would be reported using brief labels (“*n*% of philosophers are Platonists”), and these reports would be least misleading if the labels themselves were used in posing the questions.

The questions focus especially on five “core” areas of analytic philosophy, in part because these appeared to be the most accessible to philosophers outside the area. There are five questions from each of epistemology, ethics, metaphysics, and the philosophy of mind, and three from the philosophy of language. There is also one question each from aesthetics, decision theory, logic, metaphilosophy, philosophy of action, philosophy of science, and political philosophy.

¹ For non-binary questions, the first two options below are replaced by “Accept more than one, undecided between others” and “Reject all.”

Of course there were numerous arbitrary decisions in deciding on both questions and options. The survey designers allowed themselves one “pet question” each (questions 21 and 30, respectively) on their own research areas. The wording for a number of questions (those on aesthetics, personal identity, and truth, for example) underwent considerable refinement in response to feedback during the beta testing process. It was particularly difficult to formulate a question within political philosophy: the most obvious questions involved “liberalism”, but this term is too ambiguous in an international context to be useful. We would have liked to have included questions from the philosophy of gender and race and from the history of philosophy, but it proved difficult to find questions that worked in the survey format. For more discussion of the choice of questions, see the survey’s web site.²

2.3 Orientation and background questions

Respondents were also asked to provide information on their philosophical orientation and on various background properties. They were asked the following questions about philosophical orientation:

- *Areas of specialization.* Respondents had to choose from the following list of areas (the primary areas in the PhilPapers category system): 17th/18th Century Philosophy, 19th Century Philosophy, 20th Century Philosophy, Aesthetics, African/Africana Philosophy, Ancient Greek Philosophy, Applied Ethics, Asian Philosophy, Continental Philosophy, Decision Theory, Epistemology, European Philosophy, General Philosophy of Science, Logic and Philosophy of Logic, Medieval and Renaissance Philosophy, Meta-Ethics, Metaphilosophy, Metaphysics, Normative Ethics, Philosophy of Action, Philosophy of Biology, Philosophy of Cognitive Science, Philosophy of Computing and Information, Philosophy of Gender, Race, and Sexuality, Philosophy of Language, Philosophy of Law, Philosophy of Mathematics, Philosophy of Mind, Philosophy of Physical Science, Philosophy of Religion, Philosophy of Social Science, Philosophy of the Americas, Social and Political Philosophy.
- *Philosophical tradition.* Respondents could choose either “analytic”, “continental” or “other.” When selecting “other” they could enter a tradition as free text.
- *For which nonliving philosophers X would you describe yourself or your work as X-ian, or the equivalent? List in order, and choose “other” to specify a new option.* Respondents could choose from a list of well-known philosophers or select “other” to specify philosophers manually. The list was based on surveys, conducted on the Leiter Reports weblog, of the greatest philosophers of the last 200 years and of all time. The list included: Anscombe, Aquinas, Aristotle, Augustine, Berkeley, Carnap, Davidson, Descartes, Frege, Hegel, Heidegger, Hobbes, Hume, Husserl, Kant, Kierkegaard, Leibniz, Lewis, Locke, Marx, Mill, Moore, Nietzsche, Plato, Quine, Rawls, Rousseau, Russell, Socrates, Spinoza, Wittgenstein.

² <http://philpapers.org/surveys>.

Respondents were also asked the following background questions:

- Year of birth,
- Nationality,
- Gender (male or female),
- Doctorate in philosophy (respondents could indicate that they hold a doctorate in philosophy, and specify the granting institution and year),
- Primary affiliation and secondary affiliation (respondents could specify the institution, discipline, and their role: undergraduate student, graduate student, postdoc, research staff, faculty, or administrator).

The survey was anonymous. Under consent guidelines approved by the ANU Human Ethics Panel, respondents were told how their answers would be used, and at the end of the survey were asked to consent to the use of their answers.

2.4 Metasurvey questions and interface

In the Metasurvey, respondents had to estimate what percentages of respondents in the primary target population would either accept or lean toward any of the main positions mentioned in the survey. For the question on a priori knowledge, for example (question 1 above), respondents had to assign percentages to the following three sets of responses:

- Accept: yes, Lean toward: yes;
- Accept: no, Lean toward: no;
- Accept both, Reject both, Accept an intermediate view, Accept another alternative, The question is too unclear to answer, There is no fact of the matter, Insufficiently familiar with the issue, Agnostic/undecided, Other, Skip.

Respondents therefore had to specify three percentages for each question. The Metasurvey interface is shown in Fig. 2. Answer options were randomized wherever they appeared. Respondents were explained the nature and sampling method of the target group at the beginning of the Metasurvey.

3 Main survey results

931 of the 1,972 members of the target faculty group completed the survey (a 47.2 % response rate across all demographics). Including the uncontrolled survey group, 3,226 individuals from all populations completed the survey.

3.1 Demographics of target faculty

Of the respondents, 77.2 % specified “male,” 17.4 % specified “female,” and 5.3 % did not specify a gender. Figure 3 shows the distribution of years of birth among the respondents from the target faculty group who provided their year of birth.

There are three geographical parameters in the survey: nationality, location of PhD department, and location of current affiliation. For simplicity we group

Question 1 of 30

Background

Original survey question:

Proper names: Millian or Fregean?

Note that both questions and possible answers were randomly ordered for each participant. Click [here](#) to view the original interface in a new window.

Question

What percentage of the target group (?) do you think will choose answers among the following sets:

Accept: Millian or Lean toward: Millian

% 

Accept: Fregean or Lean toward: Fregean

% 

Other (one of: Accept both, Reject both, Accept an intermediate view, Accept another alternative, The question is too unclear to answer, There is no fact of the matter, Insufficiently familiar with the issue, Agnostic/undecided, Other, Skip)

%

Or: [Skip this question](#)

Fig. 2 Metasurvey interface

locations into six main groups: Australasia, Canada, (continental) Europe, UK, USA, and Other. The target faculty who provided this information break down as indicated in Table 1.

We used demographic information to address issues about response bias by determining whether members of certain demographic groups were more likely to respond. Our information about nonrespondents consists only of their name and affiliation, but the former can be used to assign gender via a gender guessing system based on first names,³ and the latter can be used to determine region of affiliation. Response rates for these groups were compared to the overall response rate for target faculty (47.2 %).

The response rate for males was 48 % and the response rate for females was 37.7 %. Response rates for geographical regions are as follows: Australasia

³ We estimated genders based on the frequency of first names for both genders in the 1990 US census. A name is counted as female if it occurs with a frequency of at least 1 out of 1,000 among females and is at least 50 times more common among females than males (the same procedure is applied for males, *mutadis mutandis*). We chose these thresholds to obtain 100 % matching with the genders specified by respondents. Approximately 60 % of the target faculty population were assigned a gender by this method.

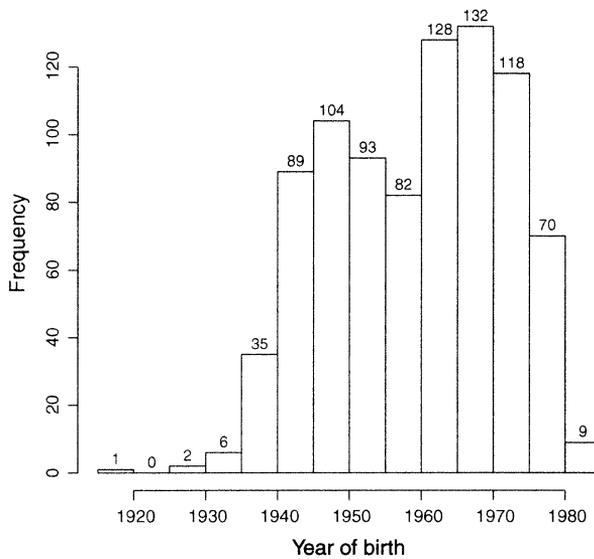


Fig. 3 Years of birth and target faculty

Table 1 Regions: nationality, PhD, affiliation

	Australasia	Canada	Continental Europe	UK	USA	Other
Nationality	52	65	116	154	464	70
Affiliation	42	79	58	178	563	1
PhD	30	27	46	116	496	0

(55.6 %), UK (50.2 %), Europe (49.6 %), USA (46.4 %), and Canada (41.5 %). These results suggest that women and Canadians among the target faculty population are somewhat underrepresented among respondents, while men, Australasians, and Europeans inside and outside the UK are overrepresented.

We used these response rates to determine answer percentages for the main questions that are corrected for response bias. We have not included the corrected percentages here as the effects are small (less than 1 % of the number of respondents for all main answers). Response rates for different areas of specialization are discussed in Sect. 3.2.

3.2 Philosophical orientation

The distribution of target faculty respondents among declared areas of specialization is summarized in Table 2. Note that respondents could declare up to six areas of specialization.

We analyzed response bias for areas of specialization by assigning one or more areas of specialization to nonrespondents and respondents according to whether someone with the same name has one or more papers listed in the corresponding

Table 2 Number of target faculty respondents per declared area of specialization

Metaphysics	234	Philosophy of Mind	191
Philosophy of Language	172	Epistemology	160
Normative Ethics	139	17th/18th Century Philosophy	107
Meta-Ethics	102	Social and Political Philosophy	100
General Philosophy of Science	94	Logic and Philosophy of Logic	92
Ancient Greek Philosophy	64	Philosophy of Physical Science	61
Philosophy of Cognitive Science	56	Philosophy of Religion	47
Applied Ethics	44	Philosophy of Action	43
20th Century Philosophy	42	Aesthetics	38
Philosophy of Biology	38	19th Century Philosophy	37
Philosophy of Mathematics	35	Decision Theory	31
Philosophy of Law	28	Continental Philosophy	25
Metaphilosophy	21	Philosophy of Social Science	21
Philosophy of Probability	19	Philosophy of Gender, Race, and Sexuality	17
Medieval and Renaissance Philosophy	17	Asian Philosophy	10
Philosophy of Computing and Information	2	Philosophy of the Americas	2
African/Africana Philosophy	2		

area of the PhilPapers taxonomy. 1,868 of the 1,972 target faculty were assigned an area by this method. (Note that these areas may differ from declared area of specialization.) Among these 1,868, the response rate was 48.4 %. The following response rates were found for the five major clusters in the PhilPapers taxonomy: Metaphysics and Epistemology (51.9 %), Value Theory (49.9 %). Science, Logic, and Mathematics (51.2 %), History of Western Philosophy (49 %), and Philosophical Traditions (43.6 %). (Response rates for individual categories tend to be higher than the overall response rate because philosophers included in more than one category respond at higher rates.) Of the 33 main areas that fall under these clusters, the areas with the highest response rates were Metaphilosophy (65.5 %), Philosophy of Physical Sciences (60.5 %), Epistemology (58.2 %), Metaphysics (57.7 %), and Philosophy of Language (57.7 %). The areas with the lowest response rates were Continental Philosophy (42.5 %), Philosophy of the Americas (43 %), Ancient Greek Philosophy (43.9 %), Philosophy of Law (44.9 %), and Medieval and Renaissance Philosophy (45.8 %).

The 20 non-living philosophers with whom the most target faculty respondents identified are listed in Table 3.

3.3 Main answers

The following list summarizes the results for the target faculty group, collapsing answers that “accept” and “lean toward” a given view and collapsing all “other” answers. More fine-grained results can be found in Appendix 1.

- (1) A priori knowledge: yes 71.1 %, no 18.4 %, other 10.5 %.
- (2) Abstract objects: Platonism 39.3 %, nominalism 37.7 %, other 23.0 %.

Table 3 The 20 non-living philosophers with whom the most target faculty respondents identified

Hume	139	Aristotle	118
Kant	113	Wittgenstein	73
Frege	70	Lewis	69
Russell	61	Quine	61
Davidson	49	Carnap	45
Mill	42	Rawls	42
Plato	37	Locke	35
Moore	27	Spinoza	22
Nietzsche	21	Descartes	19
Leibniz	18	Hegel	16

- (3) Aesthetic value: objective 41.0 %, subjective 34.5 %, other 24.5 %.
- (4) Analytic–synthetic distinction: yes 64.9 %, no 27.1 %, other 8.1 %.
- (5) Epistemic justification: externalism 42.7 %, internalism 26.4 %, other 30.8 %.
- (6) External world: non-skeptical realism 81.6 %, skepticism 4.8 %, idealism 4.3 %, other 9.2 %.
- (7) Free will: compatibilism 59.1 %, libertarianism 13.7 %, no free will 12.2 %, other 14.9 %.
- (8) God: atheism 72.8 %, theism 14.6 %, other 12.6 %.
- (9) Knowledge claims: contextualism 40.1 %, invariantism 31.1 %, relativism 2.9 %, other 25.9 %.
- (10) Knowledge: empiricism 35.0 %, rationalism 27.8 %, other 37.2 %.
- (11) Laws of nature: non-Humean 57.1 %, Humean 24.7 %, other 18.2 %.
- (12) Logic: classical 51.6 %, non-classical 15.4 %, other 33.1 %.
- (13) Mental content: externalism 51.1 %, internalism 20.0 %, other 28.9 %.
- (14) Meta-Ethics: moral realism 56.4 %, moral anti-realism 27.7 %, other 15.9 %.
- (15) Metaphilosophy: naturalism 49.8 %, non-naturalism 25.9 %, other 24.3 %.
- (16) Mind: physicalism 56.5 %, non-physicalism 27.1 %, other 16.4 %.
- (17) Moral judgment: cognitivism 65.7 %, non-cognitivism 17.0 %, other 17.3 %.
- (18) Moral motivation: internalism 34.9 %, externalism 29.8 %, other 35.3 %.
- (19) Newcomb's problem: two boxes 31.4 %, one box 21.3 %, other 47.4 %.
- (20) Normative Ethics: deontology 25.9 %, consequentialism 23.6 %, virtue ethics 18.2 %, other 32.3 %.
- (21) Perceptual experience: representationalism 31.5 %, qualia theory 12.2 %, disjunctivism 11.0 %, sense-datum theory 3.1 %, other 42.2 %.
- (22) Personal identity: psychological view 33.6 %, biological view 16.9 %, further-fact view 12.2 %, other 37.3 %.
- (23) Politics: egalitarianism 34.8 %, communitarianism 14.3 %, libertarianism 9.9 %, other 41.0 %.
- (24) Proper names: Millian 34.5 %, Fregean 28.7 %, other 36.8 %.
- (25) Science: scientific realism 75.1 %, scientific anti-realism 11.6 %, other 13.3 %.

Table 4 Conversion scheme for “other” answers

Choices	Values
Accept/reject both	Set to 2/−2
Accept another alternative	Set to −2
Accept more than one	Don't count
Reject one, undecided between others	Don't count
Skipped	Don't count
Other answers	Set to 0

- (26) Teletransporter: survival 36.2 %, death 31.1 %, other 32.7 %.
- (27) Time: B-theory 26.3 %, A-theory 15.5 %, other 58.2 %.
- (28) Trolley problem: switch 68.2 %, don't switch 7.6 %, other 24.2 %.
- (29) Truth: correspondence 50.8 %, deflationary 24.8 %, epistemic 6.9 %, other 17.5 %.
- (30) Zombies: conceivable but not metaphysically possible 35.6 %, metaphysically possible 23.3 %, inconceivable 16.0 %, other 25.1 %.

3.4 Correlations

The surveys revealed a number of interesting correlations between answers to the 30 main questions and between answers to these questions and demographic factors such as gender, age, and geographical location. For each main view on each main question, we converted the answer to that question to a score (+2 for accepting the view, +1 for leaning toward it, −1 for leaning toward another view, and −2 for accepting another view). “Other” answers were treated as indicated in Table 4.

For the 21 binary questions, the scores for the two main views will be perfectly correlated (one is the negation of the other) so we need only focus on one view in each case. We summarize and discuss the correlations we found in what follows.

To illustrate the significance of the correlations reported, take the correlation coefficient between metaphilosophical naturalism and non-cognitivism about moral judgments, which is 0.204. This coefficient is derived from the distribution of answers summarized in Table 5. Note that 70.2 % of non-cognitivists are naturalists, while only 51.7 % of cognitivists are naturalists. This illustrates the fact that a correlation coefficient of approximately 0.2 reflects a sizable difference in relative proportions. Contingency tables such as Table 5 are available for all answers pairs on the survey site.⁴

For those who are interested in statistical significance: a correlation of 0.2 over a body of 931 responses indicates a statistical significance (*p* value) of approximately 7×10^{-10} . Statistical significances of 0.001, 0.01, and 0.05 correspond to correlations of 0.107, 0.084, and 0.064, respectively. We did not set out to test hypotheses concerning correlations, however, so these analyses should be seen as exploratory, and claims about statistical significance should be interpreted

⁴ <http://philpapers.org/surveys>.

Table 5 Distribution of answers for Metaphilosophy: naturalism and moral judgments: cognitivism

	Naturalism (%)	Non-naturalism (%)
Cognitivism	51.7	34
Non-cognitivism	70.2	19

cautiously. There are 2,023 potentially correlated pairs of main answers that are relevant to the following discussion, so we should expect about 20 significant results at the 0.01 level by chance alone and two at the 0.001 level. In what follows, all correlations displayed are significant at the 0.01 level, and most are significant at well beyond the 0.001 level. Still, it should be noted that correlations of 0.1 and 0.2 are often regarded as too weak to permit inference to the structure of underlying mechanisms. We are not putting forward hypotheses about underlying mechanisms here. Instead, we take the correlations to be of sociological interest in their own right.

3.5 Correlations between philosophical views

The survey revealed many correlations between philosophical views. The highest correlations are summarized in Table 6. Many more correlations are available on the survey site.⁵

3.6 Gender correlations

Gender is correlated with a number of views. The strongest correlations (positive correlations indicate a correlation with being female) are shown in Table 7. Correlations between gender and background questions and philosophical orientation can be found on the survey's website. Most of these correlations were less than 0.1, except for a 0.22 correlation with Philosophy of Gender, Race, and Sexuality and a -0.10 correlation with Metaphysics.

3.7 Age correlations

We found a number of significant correlations between year of birth and philosophical views. The strongest correlations are summarized in Table 8. Note that positive correlations with year of birth are equivalent to negative correlations with age. Correlations between year of birth and background questions and philosophical orientation can be found on the survey's website. The strongest positive correlations (0.1–0.15) are with UK affiliation, continental European nationality, USA PhD, identification with Lewis, and analytic tradition. The strongest negative correlations (-0.1 to -0.15) are with USA affiliation and nationality, identification with Aristotle and Wittgenstein, and a specialization in Continental Philosophy.

⁵ <http://philpapers.org/surveys>.

Table 6 Fifty highest correlations between philosophical views

Answer A	Answer B	<i>r</i>
Moral judgment: cognitivism	Meta-Ethics: moral realism	0.562
Metaphilosophy: non-naturalism	Mind: non-physicalism	0.497
Analytic–synthetic distinction: yes	A priori knowledge: yes	0.467
Meta-Ethics: moral realism	Aesthetic value: objective	0.411
Mind: physicalism	God: atheism	0.393
Science: scientific realism	External world: non-skeptical realism	0.393
Mind: non-physicalism	Free will: libertarianism	0.386
God: theism	Free will: libertarianism	0.385
A priori knowledge: yes	Knowledge: rationalism	0.383
Teletransporter: survival	Personal identity: psychological view	0.375
Truth: correspondence	Science: scientific realism	0.362
Metaphilosophy: non-naturalism	Knowledge: rationalism	0.36
Metaphilosophy: naturalism	God: atheism	0.351
Metaphilosophy: non-naturalism	Free will: libertarianism	0.343
Epistemic justification: internalism	Mental content: internalism	0.342
Meta-Ethics: moral realism	Abstract objects: Platonism	0.335
Moral judgment: non-cognitivism	Aesthetic value: subjective	0.333
Meta-Ethics: moral realism	Laws of nature: non-Humean	0.329
Metaphilosophy: naturalism	Abstract objects: nominalism	0.321
Meta-Ethics: moral realism	Science: scientific realism	0.32
Abstract objects: Platonism	Knowledge: rationalism	0.307
Abstract objects: nominalism	Laws of nature: Humean	0.303
Knowledge: empiricism	Mind: non-physicalism	−0.302
Science: scientific anti-realism	Laws of nature: Humean	0.299
Truth: correspondence	Meta-Ethics: moral realism	0.294
Meta-Ethics: moral anti-realism	Metaphilosophy: naturalism	0.288
Truth: correspondence	Laws of nature: non-Humean	0.287
Moral judgment: non-cognitivism	Laws of nature: non-Humean	−0.286
Normative Ethics: consequentialism	Trolley problem: switch	0.284
A priori knowledge: yes	Metaphilosophy: non-naturalism	0.276
Time: B-theory	Free will: libertarianism	−0.271
Laws of nature: non-Humean	Knowledge: rationalism	0.268
Abstract objects: Platonism	Knowledge claims: invariantism	0.26
Meta-Ethics: moral anti-realism	Knowledge: empiricism	0.258
Moral judgment: cognitivism	Science: scientific realism	0.257
Metaphilosophy: naturalism	Aesthetic value: subjective	0.257
Science: scientific realism	Abstract objects: Platonism	0.255
A priori knowledge: yes	Laws of nature: non-Humean	0.253
Aesthetic value: objective	Abstract objects: nominalism	−0.253
Normative Ethics: consequentialism	Metaphilosophy: naturalism	0.252
Normative Ethics: consequentialism	Mind: physicalism	0.252
Moral judgment: non-cognitivism	Abstract objects: nominalism	0.249

Table 6 continued

Answer A	Answer B	<i>r</i>
Zombies: metaphysically possible	Mind: non-physicalism	0.248
A priori knowledge: no	Abstract objects: Platonism	-0.248
Perceptual experience: representationalism	Mind: physicalism	0.247
Metaphilosophy: naturalism	Laws of nature: Humean	0.245
Mind: physicalism	Abstract objects: nominalism	0.244
Time: B-theory	Metaphilosophy: naturalism	0.243
Moral judgment: non-cognitivism	Knowledge: empiricism	0.243
Meta-Ethics: moral realism	Free will: libertarianism	0.24

Table 7 Highest correlations between gender: female and main answers

Answers	<i>r</i>
Truth: epistemic	0.147
Trolley problem: don't switch	0.141
Knowledge claims: invariantism	-0.126
Truth: correspondence	-0.123
A priori knowledge: no	0.116
Science: scientific anti-realism	0.116
Knowledge: empiricism	0.116
Abstract objects: nominalism	0.115
Politics: libertarianism	-0.115
Analytic-synthetic distinction: no	0.112
Moral judgment: non-cognitivism	0.111
Laws of nature: Humean	0.109
External world: idealism	0.101
Zombies: metaphysically possible	-0.098

3.8 Geographical correlations

In general, birth location, PhD location, and current location are strongly correlated in unsurprising ways, and all three exhibit fairly similar correlations with philosophical answers. We list correlations between current affiliation and main answers in Table 9; other results can be found on the web.

3.9 Specialization correlations

Table 10 shows the main correlations between areas of specialization and philosophical views. It is also interesting to compare the answers of individuals specializing in areas relevant to a question with those not specializing in these areas. We will refer to these groups as “specialists” and “non-specialists,” respectively. In comparing specialist and non-specialist answers, we ignore “other” answers and

Table 8 Highest correlations between year of birth and main answers

Answers	<i>r</i>
Laws of nature: Humean	0.146
Mental content: externalism	0.145
Time: B-theory	0.143
Teletransporter: survival	0.136
Knowledge claims: invariantism	0.12
Knowledge claims: contextualism	-0.096

Table 9 Highest correlations between main answers and geographic affiliations

Regions and views	<i>r</i>
Australasia	
Time: B-theory	0.149
Normative Ethics: consequentialism	0.132
Normative Ethics: deontology	-0.119
Perceptual experience: representationalism	0.109
Teletransporter: survival	0.102
Trolley problem: switch	0.09
Mind: physicalism	0.087
Canada	
Free will: libertarianism	-0.106
God: atheism	0.086
Continental Europe	
Proper names: Fregean	0.146
UK	
Perceptual experience: disjunctivism	0.203
A priori knowledge: yes	0.135
Knowledge claims: contextualism	-0.116
Analytic–synthetic distinction: yes	0.115
Knowledge claims: invariantism	0.105
Perceptual experience: representationalism	-0.103
Teletransporter: survival	0.093
USA	
Proper names: Millian	0.149
Perceptual experience: disjunctivism	-0.142
Normative Ethics: deontology	0.137
Zombies: metaphysically possible	0.103
Normative Ethics: consequentialism	-0.093
Epistemic justification: internalism	0.087
Teletransporter: death	0.085
Analytic–synthetic distinction: no	0.085

normalize the other answers so they sum to 100 %. This is necessary because answers such as “insufficiently familiar with the issue” vary significantly between specialists and non-specialists for reasons that are independent of what we want to

Table 10 Highest correlations between views and specializations

Views	Specializations	<i>r</i>
God: theism	Philosophy of Religion	0.351
Free will: libertarianism	Philosophy of Religion	0.262
Mental content: externalism	Philosophy of Language	0.218
Metaphilosophy: naturalism	Philosophy of Cognitive Science	0.205
Mind: physicalism	Philosophy of Religion	-0.193
Politics: communitarianism	Normative Ethics	-0.191
Metaphilosophy: non-naturalism	Philosophy of Religion	0.19
Perceptual experience: sense-datum theory	Philosophy of Mind	-0.19
Knowledge: empiricism	General Philosophy of Science	0.181
Knowledge: empiricism	Philosophy of Biology	0.176
Normative Ethics: virtue ethics	Ancient Greek Philosophy	0.175
Zombies: metaphysically possible	Philosophy of Mind	-0.175
Moral judgment: cognitivism	Continental Philosophy	-0.167

measure. After normalization, the mean absolute difference between the percentages of specialist and non-specialist answers is 9.31 % across all questions, with a standard deviation of 11.53 %. Table 11 shows the answers exhibiting differences greater than the mean. These results suggest that there is such a thing as specialist opinion in philosophy, whether or not specialists are more likely to be right.

Interestingly, specialists were more likely than non-specialists to reject the choice between the main alternatives given. One might count the following “other” answers as rejecting choices: “The question is too unclear to answer,” “Accept another alternative,” “Accept an intermediate view,” “Accept both,” “There is no fact of the matter,” “Reject both,” “Accept more than one,” “Reject all.” Across all questions, specialists reject choices 15.4 % of the time compared to 12.2 % for non-specialists. Nine questions have choices rejected by more than 20 % of specialists: the dichotomies involving empiricism and rationalism (38.8 %), objectivism and subjectivism about aesthetic value (36.9 %), internalism and externalism about epistemic justification (25 %), internalism and externalism about mental content (24 %), Fregeanism and Millianism about proper names (23.4 %), scientific realism and anti-realism (22.4 %), and classical and non-classical logic (20.6 %), and the trichotomies involving communitarianism, egalitarianism, and libertarianism in political philosophy (33 %) and physical, biological, and further-fact views of personal identity (22.7 %). These high rejection rates suggest that finer or clearer distinctions may be especially useful in these debates.

3.10 Identification effects

The highest correlations between philosophical views and identification with past philosophers are listed in Table 12. Respondents were also asked whether they identify with the analytic tradition, the continental tradition, or another tradition. We

Table 6 continued

Answer A	Answer B	<i>r</i>
Zombies: metaphysically possible	Mind: non-physicalism	0.248
A priori knowledge: no	Abstract objects: Platonism	-0.248
Perceptual experience: representationalism	Mind: physicalism	0.247
Metaphilosophy: naturalism	Laws of nature: Humean	0.245
Mind: physicalism	Abstract objects: nominalism	0.244
Time: B-theory	Metaphilosophy: naturalism	0.243
Moral judgment: non-cognitivism	Knowledge: empiricism	0.243
Meta-Ethics: moral realism	Free will: libertarianism	0.24

Table 7 Highest correlations between gender: female and main answers

Answers	<i>r</i>
Truth: epistemic	0.147
Trolley problem: don't switch	0.141
Knowledge claims: invariantism	-0.126
Truth: correspondence	-0.123
A priori knowledge: no	0.116
Science: scientific anti-realism	0.116
Knowledge: empiricism	0.116
Abstract objects: nominalism	0.115
Politics: libertarianism	-0.115
Analytic-synthetic distinction: no	0.112
Moral judgment: non-cognitivism	0.111
Laws of nature: Humean	0.109
External world: idealism	0.101
Zombies: metaphysically possible	-0.098

3.8 Geographical correlations

In general, birth location, PhD location, and current location are strongly correlated in unsurprising ways, and all three exhibit fairly similar correlations with philosophical answers. We list correlations between current affiliation and main answers in Table 9; other results can be found on the web.

3.9 Specialization correlations

Table 10 shows the main correlations between areas of specialization and philosophical views. It is also interesting to compare the answers of individuals specializing in areas relevant to a question with those not specializing in these areas. We will refer to these groups as “specialists” and “non-specialists,” respectively. In comparing specialist and non-specialist answers, we ignore “other” answers and

Table 12 Highest correlations between views and identifications

Views	Identification	<i>r</i>
Laws of nature: Humean	Hume	0.31
Metaphilosophy: naturalism	Hume	0.242
Meta-Ethics: moral anti-realism	Hume	0.228
Analytic–synthetic distinction: yes	Quine	−0.22
External world: non-skeptical realism	Kant	−0.218
Normative Ethics: deontology	Kant	0.215
Normative Ethics: virtue ethics	Aristotle	0.214
Knowledge: empiricism	Hume	0.211
Abstract objects: nominalism	Hume	0.211
A priori knowledge: yes	Quine	−0.21
Science: scientific realism	Kant	−0.206
Perceptual experience: representationalism	Wittgenstein	−0.203
Time: A-theory	Lewis	−0.202
Time: A-theory	Aristotle	0.195
Metaphilosophy: naturalism	Quine	0.193
Mind: non-physicalism	Plato	0.184
Mind: physicalism	Hume	0.182
Politics: communitarianism	Rawls	−0.181
Abstract objects: Platonism	Plato	0.174
Normative Ethics: consequentialism	Lewis	0.173
Normative Ethics: consequentialism	Hume	0.166

converted these answers into an analytic/continental variable (1 for analytic, 0 for other, −1 for continental) in order to calculate correlations with other variables. The strongest relationships with philosophical views are as shown in Table 13.

3.11 Relative importance of demographic factors

Table 14 gives the 10 highest average absolute correlation coefficients between background factors and main answers. Age, gender, and geography all exhibit correlations of roughly similar strength.

3.12 Factor analysis

To better understand these correlations, we performed exploratory factor analyses (Spearman 1904; Gorsuch 1983) and principal component analyses (Pearson 1901; Jolliffe 2002) on the target faculty responses using a range of methods. The aim of both of these types of statistical analyses is to isolate a relatively small number of factors or components (we will use these terms interchangeably) that can be used to predict as much as possible of the variation in a larger number of observed variables (in this case, answers to survey questions). Any given factor is a linear combination

Table 13 Correlations between views and identification with the analytic tradition

Views	<i>r</i>
External world: non-skeptical realism	0.238
Science: scientific realism	0.21
Trolley problem: switch	0.195
External world: idealism	-0.192
Truth: epistemic	-0.186
Knowledge claims: invariantism	0.17
Mind: physicalism	0.169
God: atheism	0.163
Truth: correspondence	0.159
Normative Ethics: consequentialism	0.156
Meta-Ethics: moral realism	0.143
Perceptual experience: representationalism	0.134
Knowledge claims: contextualism	-0.13
Mental content: externalism	0.128
Logic: classical	0.114
Metaphilosophy: naturalism	0.101

Table 14 Highest average absolute correlations between background factors and main answers

Factors	Average <i>lr</i>
Nationality: USA	0.091
PhD region: USA	0.091
Year of birth	0.089
Gender: female/male	0.087
Affiliation: USA	0.085
Affiliation: Australasia	0.084
Year of PhD	0.083
Nationality: continental Europe	0.083
Nationality: Australasia	0.083
Affiliation: continental Europe	0.075

of the observed variables. The numerical loading for each variable is the correlation between the factor and the variable.

Table 15 shows the components we extracted using principal component analysis. A varimax rotation (which produces mutually uncorrelated factors that tend to be highly loaded on a limited number of variables) was applied. We restricted the analysis to 30 answers in total (one per question). Some answers were combined: relativism and contextualism were combined, as were idealism and skepticism. Otherwise, the number of answers was reduced by eliminating one or more answer per question. This was necessary in order to remove uninteresting

Table 15 Components extracted using principal component analysis with varimax rotation

	PC1	PC2	PC3	PC4	PC5	PC6	PC7
Anti-naturalism							
Free will: libertarianism	0.66						
Mind: non-physicalism	0.63						
God: theism	0.63						
Metaphilosophy: non-naturalism	0.57						
Zombies: metaphysically possible	0.47						
Personal identity: further-fact view	0.48						
Objectivism/Platonism							
Moral judgment: cognitivism		0.74					
Meta-Ethics: moral realism		0.72					
Aesthetic value: objective		0.66					
Abstract objects: Platonism		0.38					
Rationalism							
A priori knowledge: yes			0.79				
Analytic–synthetic distinction: yes			0.72				
Knowledge: rationalism			0.57				
Anti-realism							
Truth: epistemic				0.65			
Science scientific: anti-realism				0.6			
External world: idealism or skepticism				0.53			
Laws of nature: Humean				0.43			
Proper names: Fregean				0.35			
Externalism							
Mental content: externalism					0.66		
Epistemic justification: externalism					0.64		
Perceptual experience: disjunctivism					0.55		
Moral motivation: externalism					0.5		
PC6							
Teletransporter: death						0.69	
Normative Ethics: deontology						0.52	
Trolley problem: don't switch						0.47	
Time: A-theory						0.41	
PC7							
Newcomb's problem: two boxes							0.58
Logic: classical							0.48
Knowledge claims: invariantism							0.48
Politics: egalitarianism							

Only loadings of a magnitude 0.35 or more are shown. The variables are grouped according to their main contributions to extracted components

dependencies between answers. The number of extracted components was restricted to seven.⁶

Similar results were obtained using five different factor analysis methods and other rotations.⁷ The first five factors extracted and the relative importance of their component variables were essentially the same in all cases except for small variations in the order of the factors. Factor analysis and principal component analysis yield different results only for the sixth and seventh factors, and the sixth and seventh factors extracted by factor analysis are still similar to those displayed in Table 15. The factors depend on the choice of survey questions, so we do not claim that these seven factors represent the most important factors underlying philosophical views in general, but they appear to be robustly linked to the answers to the 30 main questions surveyed here.

While interpreting the results of such analyses is inherently difficult, the first five components showed in Table 15 are not too hard to characterize. The first component, dominated by theism, a rejection of naturalism, libertarianism about free will, and non-physicalism about the mind, seems to reflect a rejection of a naturalistic world view. The second component combines realism and cognitivism about moral judgements with objectivism about aesthetic values. It is also associated with Platonism. It seems to reflect a propensity to acknowledge the objectivity of normative and evaluative facts and the reality of controversial entities in ontology. The third component combines a priori knowledge, analytic truths, and rationalism. The connection may be explained by the fact that a priori knowledge is typically associated with either analytic truths or rational intuition. The fourth component seems to be the kind of anti-realism associated with epistemic theories of truth, while the fifth component clearly captures a broadly externalist tendency. We will label the preceding components “anti-naturalism,” “objectivism/Platonism,” “rationalism,” “anti-realism,” and “externalism.” The labels are only rough approximations, however, and it should be noted that these components are only imperfectly correlated with explicit endorsement of naturalism, rationalism, and so on.

Components six and seven must be interpreted with additional care because they differ between the analyses conducted. It is also harder to put a label on them. Component six groups the view that one dies in the teletransporter case with deontology, the A-theory of time, and the view that one should not switch in the trolley case. The views on the trolley case and on deontology have a natural connection, but the connection between these views and the views on the teletransporter and time issues is more mysterious. The seventh component is dominated by two-boxing on Newcomb’s problem, upholding classical logic, and invariantism about knowledge claims. Again, it is unclear exactly what this component captures.

Table 16 shows the main correlations between background questions and the seven extracted components. The correlations between our two last components and

⁶ The number of components to extract (seven) was determined by using a parallel analysis (Horn 1965). See Appendix 2 for details. The number of components this analysis suggests also yields the more interpretable results and the simplest loading matrix.

⁷ Minimum residuals, weighted least squares, generalized least squares, principal axis factoring, and maximum likelihood.

Table 16 Main correlations between extracted components and (a) background, (b) philosophical identification, and (c) specialization

(a)	<i>r</i>	(b)	<i>r</i>	(c)	<i>r</i>
Anti-naturalism		Anti-naturalism		Anti-naturalism	
Nationality: Europe	-0.11	Hume	-0.29	Philosophy of Biology	-0.21
Objectivism/Platonism		Quine	-0.19	General Philosophy of Science	-0.18
Affiliation: USA	-0.1	Moore	0.14	Philosophy of Religion	0.14
Affiliation: Australasia	0.1	Nietzsche	-0.12	Metaphysics	0.14
Nationality: USA	-0.1	Plato	0.12	Philosophy of Physical Science	-0.11
Rationalism		Objectivism/Platonism		Philosophy of Social Science	-0.11
Gender: female	-0.17	Lewis	0.12	Objectivism/Platonism	
Anti-realism		Leibniz	-0.11	Philosophy of Religion	-0.22
None	-	Rationalism		Philosophy of Mind	0.17
Externalism		Kant	-0.30	Philosophy of Cognitive Science	0.15
None	-	Tradition: analytic	0.28	Rationalism	
PC6		Rawls	-0.16	Social and Political Philosophy	-0.2
Year of birth	0.15	Russell	0.13	Metaphysics	0.2
Affiliation: UK	0.13	Hegel	-0.12	19th Century Philosophy	-0.16
Affiliation: Australasia	0.12	Lewis	0.11	Normative Ethics	-0.14
Affiliation: USA	-0.12	Nietzsche	-0.11	Philosophy of Mind	0.14
Nationality: USA	-0.11	Anti-realism		17th/18th Century Philosophy	-0.13
PC7		Kant	0.14	Philosophy of Language	0.11
Year of birth	0.11	Externalism		Anti-realism	
		Tradition: analytic	0.14	Philosophy of Language	-0.13
		Hume	0.14	17th/18th Century Philosophy	0.11
		Wittgenstein	-0.14	Externalism	
		Aristotle	-0.13	Normative Ethics	0.18
		Mill	0.11	20th Century Philosophy	-0.14
		PC6		Philosophy of Religion	-0.13
		Lewis	0.13	Continental Philosophy	-0.11
		PC7		Meta-Ethics	0.1
		Lewis	0.14	Ancient Greek Philosophy	-0.1
		Aristotle	-0.12	PC6	
				None	-
				PC7	
				None	-

identification with certain philosophers suggest that these components might reflect the views of these philosophers.

4 Metasurvey results

Of the target group, 216 philosophers responded to the Metasurvey. The lower number is not surprising, as the cognitive load of the Metasurvey is much higher

than that of the survey. Of the overall group, 727 responded. We will present the results for the target group here.

One consistent effect is that respondents greatly underestimate the number of “other” answers. This effect may have more to do with errors about others’ survey-answering psychology than about their philosophical views. To eliminate this effect, we normalize both the survey results and individual answers to the Metasurvey questions by eliminating the “other” category and normalizing the remaining categories so they sum to 100 %. In the results that follow, we compare individuals’ normalized answers to the normalized survey results.

Community-level results for specific answers are as indicated in Table 17.

As well as measuring community-level effects, we can also measure mean absolute errors by individuals. For all individuals across all questions, the mean absolute error is 14.79 % ($\sigma = 12.4$ %). Figure 4 shows the frequency of absolute error levels across all Metasurvey answers from the target faculty group (i.e. across all questions and respondents for this group).

The performance of professional philosophers outside the target faculty group was a little worse. This category includes all respondents to the Metasurvey who declared a faculty-level affiliation in philosophy or a PhD in philosophy, but were not part of the target group. The mean absolute error is 16.66 % for this group ($\sigma = 14.11$ %). The difference between the target group and this group is statistically significant ($p < 0.001$).

4.1 Metasurvey analysis

The Metasurvey results indicate that philosophers have substantially inaccurate sociological beliefs about the views of their peers. One sort of inaccuracy is reflected in mean absolute error. The mean absolute error of around 15 % suggests that individual philosophers usually have inaccurate sociological beliefs. For binary questions, an error of 15 % corresponds to the difference between a 50/50 distribution and a 35/65 distribution. An error of 15 % represents a substantially inaccurate sociological belief.

A more striking sort of inaccuracy is indicated by mean non-absolute error for specific survey questions. For many questions, the Metasurvey results show a mean non-absolute error of around 15 % or worse (see Table 17). This indicates that for these questions, individual errors on the survey are biased in a way that leads to a community-wide error. For example, the community as a whole expects a 50–50 distribution on the analytic–synthetic distinction, while the survey results indicate a 70–30 distribution in favor of the distinction.

These Metasurvey results in effect show that the corresponding survey results are surprising to the community. The Metasurvey results themselves are arguably interesting and surprising, but in the absence of a Metamet survey we cannot quantify just how surprising.

The Metasurvey results on the 30 questions break down into five types with respect to the community’s overall view. In four cases, the community gets the leading view wrong: predicting subjectivism rather than objectivism about aesthetic value, invariantism instead of contextualism about knowledge claims,

Table 15 Components extracted using principal component analysis with varimax rotation

	PC1	PC2	PC3	PC4	PC5	PC6	PC7
Anti-naturalism							
Free will: libertarianism	0.66						
Mind: non-physicalism	0.63						
God: theism	0.63						
Metaphilosophy: non-naturalism	0.57						
Zombies: metaphysically possible	0.47						
Personal identity: further-fact view	0.48						
Objectivism/Platonism							
Moral judgment: cognitivism		0.74					
Meta-Ethics: moral realism		0.72					
Aesthetic value: objective		0.66					
Abstract objects: Platonism		0.38					
Rationalism							
A priori knowledge: yes			0.79				
Analytic–synthetic distinction: yes			0.72				
Knowledge: rationalism			0.57				
Anti-realism							
Truth: epistemic				0.65			
Science scientific: anti-realism				0.6			
External world: idealism or skepticism				0.53			
Laws of nature: Humean				0.43			
Proper names: Fregean				0.35			
Externalism							
Mental content: externalism					0.66		
Epistemic justification: externalism					0.64		
Perceptual experience: disjunctivism					0.55		
Moral motivation: externalism					0.5		
PC6							
Teletransporter: death						0.69	
Normative Ethics: deontology						0.52	
Trolley problem: don't switch						0.47	
Time: A-theory						0.41	
PC7							
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Logic: classical							0.48
Knowledge claims: invariantism							0.48
Politics: egalitarianism							

Only loadings of a magnitude 0.35 or more are shown. The variables are grouped according to their main contributions to extracted components

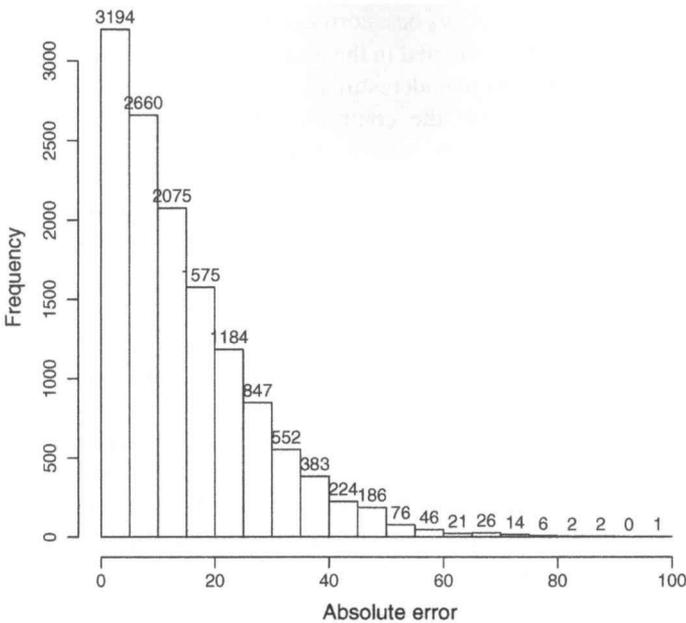


Fig. 4 Distribution of error levels across questions and target faculty

consequentialism instead of deontology about normative ethics, nominalism instead of Platonism about abstract objects. In three cases, the community predicts a fairly close result when in fact a large majority supports the leading view: the underestimated majority views here are the analytic–synthetic distinction, non-Humeanism, moral realism. In 16 cases, significant support for a majority view is predicted but its degree is underestimated by 4–21 %: the underestimated majority views here are scientific realism, switching on trolley problem, cognitivism, compatibilism, non-skeptical realism, a priori knowledge, representationalism, correspondence theory, egalitarianism, content and epistemic externalism, atheism, psychological view, B-theory, classical logic, and the view that zombies are conceivable but metaphysical impossible. In two cases, a minority view is underestimated by 4–11 %: the underestimated minority views are rationalism and non-physicalism. In five cases, the estimates are within 1.2 % of the actual result: the issues here are naturalism, moral motivation, Newcomb’s problem, proper names, and teletransportation.

It is possible to correlate individuals’ Metasurvey scores with their answers to other questions. Full results are on the web, but a high metasurvey accuracy correlates most strongly with: year of birth (0.286), a priori knowledge: yes (0.24), trolley problem: switch (0.22), PhD from the USA (0.21), year of PhD (0.204), moral judgment: cognitivism (0.196), analytic–synthetic distinction: yes (0.189), time: B-theory (0.178), Meta-Ethics: moral realism (0.158), science: scientific realism (0.141), knowledge: rationalism (0.141).

The overlap between the views best correlated with Metasurvey accuracy and the views that were most underestimated in the Metasurvey is striking. However, we did not find a significant tendency to underestimate views opposed to one's own across the whole of the Metasurvey. On the contrary, we found a statistically significant tendency to underestimate the popularity of one's views ($p < 0.001$). Across all answers, the mean error for participants' own views is -2.52% ($\sigma = 13.08$, $n = 4,600$), while it is 1.37% ($\sigma = 12.11$, $n = 8,474$) for opposing views.

5 Summary of conclusions

There is famously no consensus on the answers to most major philosophical questions. Still, some of the questions on the survey came closer to drawing a consensus than others. In particular, the following views all had normalized positive answer rates of approximately 70% or more: a priori knowledge, the analytic–synthetic distinction, non-skeptical realism, compatibilism, atheism, non-Humeanism about laws, cognitivism about moral judgment, classicism about logic, externalism about mental content, scientific realism, and trolley switching.

The Metasurvey indicates that a number of the preceding positions were not expected to reach this level of agreement: a priori knowledge, the analytic–synthetic distinction, non-Humeanism about laws, cognitivism about moral judgment, scientific realism, and trolley switching were all predicted to achieve rates at least 15% lower. For most of these questions, respondents to the Metasurvey underestimated agreement on the leading positions. Two notable exceptions are subjectivism about aesthetic value (estimate 67.7%, actual 45.7%) and empiricism (estimate 66.5%, actual 55.7%).

The correlations and principal component analysis reported in the preceding sections suggest that philosophical views tend to come in packages. Our analysis reveals five major choice points in logical space: naturalism versus anti-naturalism, objectivism/Platonism versus subjectivism, rationalism versus empiricism, realism versus anti-realism (of the kind associated with epistemic theories of truth), internalism versus externalism. Of course, the packages depend on the choice of questions, and different surveys may have yielded different packages. Still, much of one's position on the questions we asked appears to be determined by one's view on these five issues. Positions on these issues are significantly affected by respondents' professional backgrounds, their specializations, and their orientations as philosophers.

The Metasurvey suggests that philosophers often have highly inaccurate sociological beliefs. The survey itself may contribute to the project of correcting these beliefs. Given the important roles that sociological beliefs sometimes play in philosophy, there may well be room for more surveys of the philosophical views of professional philosophers.

Acknowledgments Thanks to Kelvin McQueen for research assistance. Thanks to many beta testers and other consultants for their help with survey design. For feedback on this paper, thanks to Chris Green, Kieran Healy, Angela Mendelovici, Thomas Sturm, and anonymous reviewers. Finally, thanks to everyone who completed the survey.

Appendix 1: Detailed survey results

The following tables show the main answers of the 931 target faculty participants with a 95% confidence interval. We show the aggregate percentage of respondents for each of the main available position, with a breakdown of the specific options. Options that did not reach 2% are omitted.

A priori knowledge: yes or no?

Yes	71.1 ± 1.7 %	Accept (50.8 %), Lean toward (20.3 %)
No	18.4 ± 0.9 %	Lean toward (12.1 %), Accept (6.2 %)
Other	10.5 ± 0.7 %	The question is too unclear to answer (4.6 %)

Abstract objects: Platonism or nominalism?

Platonism	39.3 ± 1.3 %	Accept (19.8 %), Lean toward (19.5 %)
Nominalism	37.7 ± 1.3 %	Lean toward (22.6 %), Accept (15.1 %)
Other	23.0 ± 1.0 %	Agnostic/undecided (5.0 %), Accept another alternative (4.9 %), Reject both (3.7 %), Insufficiently familiar with the issue (2.8 %), Accept an intermediate view (2.3 %), The question is too unclear to answer (2.0 %)

Aesthetic value: objective or subjective?

Objective	41.0 ± 1.3 %	Lean toward (27.1 %), Accept (14.0 %)
Subjective	34.5 ± 1.2 %	Lean toward (19.4 %), Accept (15.0 %)
Other	24.5 ± 1.0 %	Accept an intermediate view (6.6 %), The question is too unclear to answer (4.5 %), Agnostic/undecided (3.2 %), Insufficiently familiar with the issue (3.1 %), Accept another alternative (2.6 %), Accept both (2.6 %)

Analytic–synthetic distinction: yes or no?

Yes	64.9 ± 1.6 %	Accept (36.8 %), Lean toward (28.0 %)
No	27.1 ± 1.1 %	Lean toward (14.6 %), Accept (12.5 %)
Other	8.1 ± 0.6 %	The question is too unclear to answer (2.5 %)

Epistemic justification: internalism or externalism?

Externalism	42.7 ± 1.3 %	Lean toward (26.7 %), Accept (16.0 %)
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Other	30.8 ± 1.1 %	Accept an intermediate view (6.9 %), Agnostic/undecided (6.0 %), Insufficiently familiar with the issue (4.7 %), Accept both (4.6 %), The question is too unclear to answer (3.0 %), Accept another alternative (2.1 %)
Internalism	26.4 ± 1.1 %	Lean toward (17.3 %), Accept (9.1 %)
External world: idealism, skepticism, or non-skeptical realism?		
Non-skeptical realism	81.6 ± 1.8 %	Accept (61.4 %), Lean toward (20.2 %)
Other	9.2 ± 0.6 %	Accept another alternative (2.6 %)
Skepticism	4.8 ± 0.5 %	Lean toward (3.0 %), Accept (1.8 %)
Idealism	4.3 ± 0.4 %	Lean toward (2.7 %), Accept (1.6 %)
Free will: compatibilism, libertarianism, or no free will?		
Compatibilism	59.1 ± 1.6 %	Accept (34.8 %), Lean toward (24.3 %)
Other	14.9 ± 0.8 %	Agnostic/undecided (4.1 %), The question is too unclear to answer (2.8 %)
Libertarianism	13.7 ± 0.8 %	Accept (7.7 %), Lean toward (6.0 %)
No free will	12.2 ± 0.7 %	Lean toward (6.6 %), Accept (5.7 %)
God: theism or atheism?		
Atheism	72.8 ± 1.7 %	Accept (61.9 %), Lean toward (11.0 %)
Theism	14.6 ± 0.8 %	Accept (10.6 %), Lean toward (4.0 %)
Other	12.6 ± 0.7 %	Agnostic/undecided (5.5 %)
Knowledge claims: contextualism, relativism, or invariantism?		
Contextualism	40.1 ± 1.3 %	Lean toward (28.0 %), Accept (12.0 %)
Invariantism	31.1 ± 1.2 %	Lean toward (19.7 %), Accept (11.5 %)
Other	25.9 ± 1.1 %	Insufficiently familiar with the issue (9.0 %), Agnostic/undecided (5.7 %), The question is too unclear to answer (2.5 %)
Relativism	2.9 ± 0.4 %	Lean toward (1.7 %), Accept (1.2 %)
Knowledge: empiricism or rationalism?		
Other	37.2 ± 1.3 %	Accept an intermediate view (11.4 %), The question is too unclear to answer (9.8 %), Accept both (6.3 %), Reject both (3.5 %), Accept another alternative (2.7 %)
Empiricism	35.0 ± 1.2 %	Lean toward (21.4 %), Accept (13.6 %)
Rationalism	27.8 ± 1.1 %	Lean toward (17.2 %), Accept (10.6 %)

Laws of nature: Humean or non-Humean?

Non-Humean	57.1 ± 1.5 %	Accept (29.2 %), Lean toward (27.9 %)
Humean	24.7 ± 1.0 %	Lean toward (16.0 %), Accept (8.7 %)
Other	18.2 ± 0.9 %	Agnostic/undecided (6.4 %), Insufficiently familiar with the issue (5.5 %)

Logic: classical or non-classical?

Classical	51.6 ± 1.5 %	Accept (27.6 %), Lean toward (24.0 %)
Other	33.1 ± 1.2 %	Insufficiently familiar with the issue (12.0 %), Agnostic/undecided (5.6 %), Accept both (5.2 %), The question is too unclear to answer (3.4 %), There is no fact of the matter (3.2 %)
Non-classical	15.4 ± 0.8 %	Lean toward (7.9 %), Accept (7.4 %)

Mental content: internalism or externalism?

Externalism	51.1 ± 1.5 %	Lean toward (25.7 %), Accept (25.5 %)
Other	28.9 ± 1.1 %	Insufficiently familiar with the issue (5.7 %), Agnostic/undecided (5.6 %), Accept an intermediate view (4.4 %), Accept both (3.9 %), The question is too unclear to answer (3.0%), Accept another alternative (2.3%)
Internalism	20.0 ± 0.9 %	Lean toward (12.6%), Accept (7.4%)

Meta-Ethics: moral realism or moral anti-realism?

Moral realism	56.4 ± 1.5 %	Accept (32.2%), Lean toward (24.2%)
Moral anti-realism	27.7 ± 1.1 %	Lean toward (14.5%), Accept (13.2%)
Other	15.9 ± 0.8 %	The question is too unclear to answer (2.9%), Accept another alternative (2.7%), Agnostic/undecided (2.6 %), Accept an intermediate view (2.5 %), Insufficiently familiar with the issue (2.5 %)

Metaphilosophy: naturalism or non-naturalism?

Naturalism	49.8 ± 1.4 %	Accept (30.5 %), Lean toward (19.3 %)
Non-naturalism	25.9 ± 1.1 %	Accept (14.8 %), Lean toward (11.1 %)
Other	24.3 ± 1.0 %	The question is too unclear to answer (9.7 %), Insufficiently familiar with the issue (6.8 %), Agnostic/undecided (2.7 %)

Laws of nature: Humean or non-Humean?

Non-Humean	57.1 ± 1.5 %	Accept (29.2 %), Lean toward (27.9 %)
Humean	24.7 ± 1.0 %	Lean toward (16.0 %), Accept (8.7 %)
Other	18.2 ± 0.9 %	Agnostic/undecided (6.4 %), Insufficiently familiar with the issue (5.5 %)

Logic: classical or non-classical?

Classical	51.6 ± 1.5 %	Accept (27.6 %), Lean toward (24.0 %)
Other	33.1 ± 1.2 %	Insufficiently familiar with the issue (12.0 %), Agnostic/undecided (5.6 %), Accept both (5.2 %), The question is too unclear to answer (3.4 %), There is no fact of the matter (3.2 %)
Non-classical	15.4 ± 0.8 %	Lean toward (7.9 %), Accept (7.4 %)

Mental content: internalism or externalism?

Externalism	51.1 ± 1.5 %	Lean toward (25.7 %), Accept (25.5 %)
Other	28.9 ± 1.1 %	Insufficiently familiar with the issue (5.7 %), Agnostic/undecided (5.6 %), Accept an intermediate view (4.4 %), Accept both (3.9 %), The question is too unclear to answer (3.0 %), Accept another alternative (2.3 %)
Internalism	20.0 ± 0.9 %	Lean toward (12.6 %), Accept (7.4 %)

Meta-Ethics: moral realism or moral anti-realism?

Moral realism	56.4 ± 1.5 %	Accept (32.2 %), Lean toward (24.2 %)
Moral anti-realism	27.7 ± 1.1 %	Lean toward (14.5 %), Accept (13.2 %)
Other	15.9 ± 0.1 %	The question is too unclear to answer (2.9 %), Accept another alternative (2.7 %), Agnostic/undecided (2.6 %), Accept an intermediate view (2.5 %), Insufficiently familiar with the issue (2.5 %)

Metaphilosophy: naturalism or non-naturalism?

Naturalism	49.8 ± 1.4 %	Accept (30.5 %), Lean toward (19.3 %)
Non-naturalism	25.9 ± 1.1 %	Accept (14.3 %), Lean toward (11.1 %)
Other	24.3 ± 1.0 %	The question is too unclear to answer (9.7 %), Insufficiently familiar with the issue (6.8 %), Agnostic/undecided (2.7 %)

Other	42.2 ± 1.3 %	Insufficiently familiar with the issue (16.2 %), Agnostic/undecided (8.4 %), Accept another alternative (3.9 %), Reject all (3.3 %), The question is too unclear to answer (2.6 %), Reject one or two, undecided between others (2.3 %), Skip (2.3 %)
Representationalism	31.5 ± 1.2 %	Lean toward (21.2 %), Accept (10.3 %)
Qualia theory	12.2 ± 0.7 %	Lean toward (9.0 %), Accept (3.2 %)
Disjunctivism	11.0 ± 0.7 %	Lean toward (7.4 %), Accept (3.5 %)
Sense-datum theory	3.1 ± 0.4 %	Lean toward (1.8 %), Accept (1.3 %)
Personal identity: biological view, psychological view, or further-fact view?		
Other	37.3 ± 1.3 %	Agnostic/undecided (8.5 %), Insufficiently familiar with the issue (6.2 %), There is no fact of the matter (4.2 %), Accept more than one (4.0 %), Accept another alternative (3.9 %), The question is too unclear to answer (2.8 %), Accept an intermediate view (2.7 %), Reject all (2.6 %)
Psychological view	33.6 ± 1.2 %	Lean toward (22.7 %), Accept (11.0 %)
Biological view	16.9 ± 0.9 %	Lean toward (11.3 %), Accept (5.6 %)
Further-fact view	12.2 ± 0.7 %	Lean toward (7.8 %), Accept (4.4 %)
Politics: communitarianism, egalitarianism, or libertarianism?		
Other	41.0 ± 1.3 %	Insufficiently familiar with the issue (10.7 %), Agnostic/undecided (5.5 %), The question is too unclear to answer (4.5 %), Accept more than one (4.0 %), Accept another alternative (4.0 %), Accept an intermediate view (3.8 %), Reject all (3.4 %), Skip (2.0 %)
Egalitarianism	34.8 ± 1.2 %	Lean toward (20.5 %), Accept (14.3 %)
Communitarianism	14.3 ± 0.8 %	Lean toward (11.6 %), Accept (2.7 %)
Libertarianism	9.9 ± 0.7 %	Lean toward (7.0 %), Accept (2.9 %)
Proper names: Fregean or Millian?		
Other	36.8 ± 1.3 %	Insufficiently familiar with the issue (13.7 %), Agnostic/undecided (6.3 %), Accept an intermediate view (4.2 %), Accept another alternative (3.4 %), The question is too unclear to answer (2.6 %), Reject both (2.4 %)
Millian	34.5 ± 1.2 %	Lean toward (18.7 %), Accept (15.8 %)

Fregean	28.7 ± 1.1 %	Lean toward (18.0 %), Accept (10.6 %)
Science: scientific realism or scientific anti-realism?		
Scientific realism	75.1 ± 1.7 %	Accept (47.0 %), Lean toward (28.0 %)
Other	13.3 ± 0.8 %	Accept an intermediate view (3.2 %), The question is too unclear to answer (2.5 %), Insufficiently familiar with the issue (2.0 %)
Scientific anti-realism	11.6 ± 0.7 %	Lean toward (8.3 %), Accept (3.3 %)
Teletransporter: survival or death?		
Survival	36.2 ± 1.2 %	Lean toward (22.7 %), Accept (13.5 %)
Other	32.7 ± 1.2 %	Insufficiently familiar with the issue (9.2 %), Agnostic/undecided (8.6 %), There is no fact of the matter (6.0 %), The question is too unclear to answer (3.7 %), Skip (2.0 %)
Death	31.1 ± 1.2 %	Accept (17.4 %), Lean toward (13.7 %)
Time: A- or B-theory?		
Other	58.2 ± 1.6 %	Insufficiently familiar with the issue (30.8 %), Agnostic/undecided (10.5 %), Skip (5.7 %), Accept both (3.1 %), The question is too unclear to answer (2.0 %)
B-theory	26.3 ± 1.1 %	Accept (15.8 %), Lean toward (10.5 %)
A-theory	15.5 ± 0.8 %	Lean toward (9.5 %), Accept (6.0 %)
Trolley problem: switch or don't switch?		
Switch	68.2 ± 1.7 %	Accept (45.1 %), Lean toward (23.1 %)
Other	24.2 ± 1.0 %	Agnostic/undecided (6.4 %), Insufficiently familiar with the issue (4.5 %), There is no fact of the matter (3.7 %), The question is too unclear to answer (2.9 %)
Don't switch	7.6 ± 0.6 %	Lean toward (4.8 %), Accept (2.8 %)
Truth: correspondence, deflationary, or epistemic?		
Correspondence	50.8 ± 1.5 %	Accept (26.2 %), Lean toward (24.6 %)
Deflationary	24.8 ± 1.0 %	Lean toward (15.8 %), Accept (9.0 %)
Other	17.5 ± 0.9 %	Agnostic/undecided (3.4 %), Insufficiently familiar with the issue (3.0 %), Reject all (2.5 %), Accept another alternative (2.1 %)
Epistemic	6.9 ± 0.5 %	Lean toward (5.0 %), Accept (1.8 %)

Zombies: inconceivable, conceivable but not metaphysically possible, or metaphysically possible?

Conceivable but not metaphysically possible	35.6 ± 1.2 %	Lean toward (20.5 %), Accept (15.0 %)
Other	25.1 ± 1.0 %	Insufficiently familiar with the issue (9.0 %), Agnostic/undecided (6.6 %), The question is too unclear to answer (4.3 %)
Metaphysically possible	23.3 ± 1.0 %	Accept (12.4 %), Lean toward (11.0 %)
Inconceivable	16.0 ± 0.8 %	Lean toward (8.8 %), Accept (7.2 %)

Appendix 2: details of principal component analysis and factor analysis

See Fig. 5 and Table18.

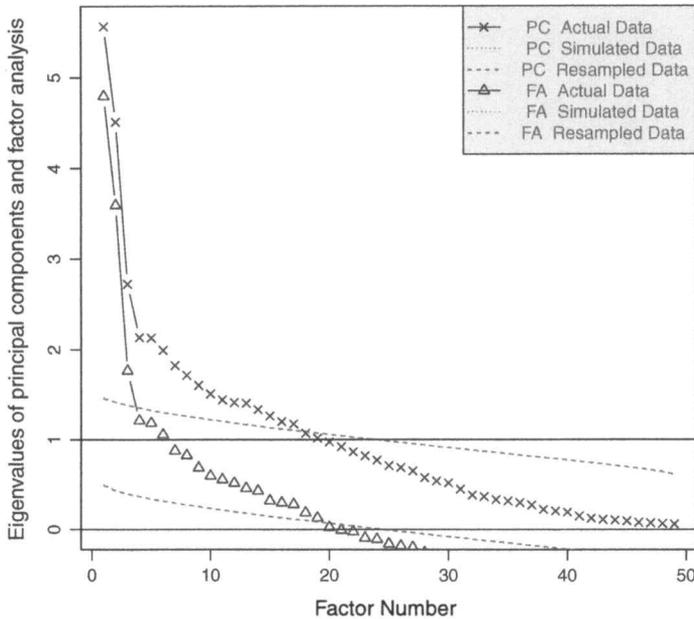


Fig. 5 Parallel analysis screen plots

Laws of nature: Humean or non-Humean?

Non-Humean	57.1 ± 1.5 %	Accept (29.2 %), Lean toward (27.9 %)
Humean	24.7 ± 1.0 %	Lean toward (16.0 %), Accept (8.7 %)
Other	18.2 ± 0.9 %	Agnostic/undecided (6.4 %), Insufficiently familiar with the issue (5.5 %)

Logic: classical or non-classical?

Classical	51.6 ± 1.5 %	Accept (27.6 %), Lean toward (24.0 %)
Other	33.1 ± 1.2 %	Insufficiently familiar with the issue (12.0 %), Agnostic/undecided (5.6 %), Accept both (5.2 %), The question is too unclear to answer (3.4 %), There is no fact of the matter (3.2 %)
Non-classical	15.4 ± 0.8 %	Lean toward (7.9 %), Accept (7.4 %)

Mental content: internalism or externalism?

Externalism	51.1 ± 1.5 %	Lean toward (25.7 %), Accept (25.5 %)
Other	28.9 ± 1.1 %	Insufficiently familiar with the issue (5.7 %), Agnostic/undecided (5.6 %), Accept an intermediate view (4.4 %), Accept both (3.9 %), The question is too unclear to answer (3.0 %), Accept another alternative (2.3 %)
Internalism	20.0 ± 0.9 %	Lean toward (12.6 %), Accept (7.4 %)

Meta-Ethics: moral realism or moral anti-realism?

Moral realism	56.4 ± 1.5 %	Accept (32.2 %), Lean toward (24.2 %)
Moral anti-realism	27.7 ± 1.1 %	Lean toward (14.5 %), Accept (13.2 %)
Other	15.9 ± 0.8 %	The question is too unclear to answer (2.9 %), Accept another alternative (2.7 %), Agnostic/undecided (2.6 %), Accept an intermediate view (2.5 %), Insufficiently familiar with the issue (2.5 %)

Metaphilosophy: naturalism or non-naturalism?

Naturalism	49.8 ± 1.4 %	Accept (30.5 %), Lean toward (19.3 %)
Non-naturalism	25.9 ± 1.1 %	Accept (14.8 %), Lean toward (11.1 %)
Other	24.3 ± 1.0 %	The question is too unclear to answer (9.7 %), Insufficiently familiar with the issue (6.8 %), Agnostic/undecided (2.7 %)