

ARTICLE

# Do we Know it When we See it? A Review of ‘Pseudoscience’ Patterns of Usage

Kåre Letrud 

Inland Norway University of Applied Sciences, Norway  
Email: [kare.letrud@inn.no](mailto:kare.letrud@inn.no)

(Received 26 October 2021; revised 28 March 2022; accepted 8 May 2022;  
first published online 7 July 2022)

## Abstract

Definitions of ‘pseudoscience’ are required to heed the established usage of the definiendum by subsuming those cases that are generally considered to be pseudoscientific, and by excluding those that are considered sciences. In this paper I sample the published record to assess the consensus on pseudoscience case classifications. The review finds inconclusive evidence for an overall agreement. However, the frequent usage of a small number of pseudoscience-cases indicates that these are considered paradigms of pseudoscience. I briefly discuss some practical implications of these findings for the pseudoscience demarcation project.

## 1. Introduction

Classifying the Search for Extra-Terrestrial Intelligence (SETI) as a pseudoscience is somewhat controversial, the search for Yeti less so. Their purported pseudoscientific status is normally justified by invoking some pseudoscience demarcation criterion. Philosophers have sought such defining criteria since Karl Popper famously drew the line at practical falsifiability. A whole range of criteria have subsequently been discussed, but no agreement has been reached (Hansson 2021). For a review demonstrating the range of criteria discussed and the lack of progress towards a consensus see Fasce (2017).

Assessments of these defining criteria include comparing them to clear and agreed upon examples of pseudoscience and science. A definition of pseudoscience that places, say, astrology and homeopathy among the sciences would presumably be rejected. The same goes for a definition that puts astronomy and chemistry among the pseudosciences. Agreements on these cases constitute patterns of ‘pseudoscience’ usage, which in turn a definition ought to respect (Carnap 1962: 5–7; Laudan 1983: 117).

Strong patterns of usage are frequently claimed to exist. Hansson (2013: 61) says that there is a ‘striking unanimity’ among scientists on demarcations between sciences and pseudosciences. This goes for philosophers proposing definitions of pseudoscience as well:

[T]here is widespread agreement for instance that creationism, astrology, homeopathy, Kirlian photography, dowsing, ufology, ancient astronaut theory, Holocaust denialism, and Velikovskian catastrophism are pseudosciences. In spite of a few points of controversy, for instance concerning the status of Freudian psychoanalysis ... the general picture is one of consensus rather than controversy in particular issues of demarcation. (Hansson 2009: 238; 2021)

Mahner agrees with these assessments:

[W]e find remarkable agreement among virtually all philosophers and scientists that fields like astrology, creationism, homeopathy, dowsing, psychokinesis, faith healing, clairvoyance, or ufology are either pseudosciences or at least lack the epistemic warrant to be taken seriously. (Mahner 2013: 30–1)

The explanans for this extensive agreement on pseudoscience cases is according to Hansson a common, tacit skill, similar to riding a bike (2013: 61). This ready recognition is also pointed out by Sokal (2008: 267): ‘one can distinguish (in most cases quite readily) between genuine science and pseudoscience ...’. Pigliucci and Boudry (2013: 2): ‘Philosophers and scientists readily recognize a pseudoscience when they see one’. Fasce concurs, and draws the overall implications for the pseudoscience demarcation project:

There is a tacit consensus about what is scientific and what is pseudoscientific, so people with the adequate motivational state can normally differentiate between both ... Accordingly, the demarcation problem can be defined as the project to justify and optimise this already existing consensus. Hence, it should not necessarily be a fuzzy task: a demarcation criterion could be restricted to discriminating between classes that are known in advance, thus offering philosophical justification to decisions that have already been made. (Fasce 2020: 165)

The above reported extensional consensus gives cause for optimism. Working out the defining criteria based on this agreement would arguably be a surmountable task, at least in this respect. The consensus also justifies the pseudoscience demarcation project itself: ‘This [agreement] is an indication that there is still much important philosophical work to be done on the demarcation between science and pseudoscience’ (Hansson 2021). That this agreement has not resulted in an agreement on the defining criteria of pseudoscience is puzzling (Hansson 2009: 238), even paradoxical (Hansson 2021).

I cannot find that Pigliucci, Boudry, Hansson, nor Mahner corroborate the above claims of a consensus, nor have I found other systematic studies on this issue. Fasce (2020), conversely, offers five citations in support of an agreement in official reports and encyclopaedias. Their formal authority does give them some weight as bearers of consensus; however, I shall briefly point out some issues with these documents.

In a review of the use of natural therapies in Spain for future regulations (MSPSI 2011) I find no reference to pseudoscience. Garrett and Cutting (2017) examine whether undergraduate nursing and education students discriminate between scientific and pseudoscientific narratives. The material for the study is a single case – a news story about the ghostly apparition of a dead girl in a photo. Shermer’s (2002) *The Skeptic Encyclopedia of Pseudoscience* does list about 100 cases of pseudoscience. The encyclopaedic status provides this list with a degree of formal authority. It does not, however, clearly demonstrate the extent and level of consensus on these issues between and

beyond members of the Skeptics Society. The last two citations are of Wiki-articles, featuring extensive lists of pseudoscientific beliefs: Wikipedia's 'List of topics characterized as pseudoscience' (Wikipedia 2021a), and Rationalwiki's 'List of pseudosciences' (2021). These entries are crowdsourced by anonymous contributors, which makes it hard to assess who or how many are agreeing. Consulting the discussion archives for the Wikipedia article does reveal several disagreements (Wikipedia 2021b). The broad convergence of these three encyclopaedias may suggest an agreement between their authors, but it may also be explained by authoritative citations of Shermer's encyclopaedia by both Wikis, e.g.:

The following are subjects regarded as pseudoscientific by notable skeptical bodies such as the Committee for Skeptical Inquiry (formerly CSICOP). Unless otherwise noted, the entries are referenced from The Skeptics Society's *The Skeptic Encyclopedia of Pseudoscience*. (Rationalwiki 2021)<sup>1</sup>

The cases listed in these documents will likely need to be addressed and assessed when discussing matters of pseudoscience demarcation. They do not, however, adequately document a consensus among philosophers and scientists. Whether these cases all ought to be subsumed by a definition needs further corroboration. Some may be such clear-cut cases of pseudoscience that any definition that excludes them will be rejected, others may be less clear, and their status revisable during the deliberations on pseudoscience criteria.

The upshot is that a consensus on what counts as pseudosciences may not be as established as it is claimed by the above philosophers. In his monograph on the Velikovsky case, Gordin writes:

We are reduced to a variant of Justice Potter Stewart's famous dictum about obscenity: We know pseudoscience when we see it. But do we really? If the historically intertwined narratives that follow indicate anything, it is that people cannot pick out pseudoscience unproblematically. (Gordin 2012: 13)

If the controversies of the Velikovsky case are representative of how potential pseudosciences are assessed, the challenge of explicating 'pseudoscience' will be considerably greater: it will require reassessing or even rejecting both criteria and case-assessments, moving back-and-forth between formulations of defining criteria on the one hand, and case classifications on the other, until reaching an adequate reflective equilibrium (cf. Brun 2020).

Any clear extensional consensus would expectedly be conveyed by strong patterns of usage in the published record. A review of this literature should consequently document the extent and degree of such consensus. It may also offer some pointers as to how the problem of pseudoscience demarcation can be approached: first, the characteristics of the pseudosciences agreed upon may serve as an empirical basis for developing a consensus on defining criteria.<sup>2</sup> Second, if there are established paradigms that definitions need to heed, a review can help identify them. Third, finding the borderline cases can help recognise any controversies a definition will need to tackle.

<sup>1</sup>The Skeptics Society and The Committee for Skeptical Inquiry are two different organizations.

<sup>2</sup>This is, admittedly, a strategy that will strive to convince opponents: 'In today's social context, that begs the very question at issue' (Nickles 2013: 114).

Alternatively, the review could uncover scarcer, weaker, or no established patterns of usage, which in turn would pose fewer restraints and pointers for explicatory efforts. It may even expose extensive disagreements and demonstrate the pseudoscience demarcation enterprise to be more complex and contentious than has previously been recognised.

## 2. Method

A full review of ‘pseudoscience’ and ‘pseudoscientific’ usage in the scientific literature would be a vast and daunting task and it would presumably also have to navigate frequent polemic usage. Instead, I have chosen to review the philosophical literature; this is where one would expect to find deliberated assessments of potential pseudosciences. Also, the opinions of philosophers on these matters arguably carry some weight because the issue of pseudoscience demarcation is primarily discussed by philosophers. Any agreement, or lack thereof, would expectedly have an impact on the demarcation project.

A review of patterns of usage is not a review of patterns of non-usage, however. It will not include documents that address potential pseudosciences without referring to them as such, or do not address discussions about their possible pseudoscientific status.

I sampled this literature using Philpapers.org, an index of philosophy publications currently covering more than 2.5 million titles (Philpapers, [n.d.-a](#)).<sup>3</sup> I searched the index using the truncated search term ‘pseudosci\*’, covering both the noun ‘pseudoscience’ and the adjective ‘pseudoscientific’. I restricted the search to documents written by professional philosophers (Philpapers’ criteria for being a professional philosopher are either having a doctorate in philosophy, or at least one publication in a select list of philosophy journals (Philpapers [n.d.-b](#))), that were published, and written in English. The search resulted in 169 documents. I removed 13 duplicates, four not in English, three theses, one self-published book, and one blog post. Included in the sample were three anthologies containing 76 chapters, a total of 220 documents (search dates 21 January 2021 and 3 February 2021). Of these I retrieved 219. I then removed 70 documents that did not contain the terms ‘pseudoscience’ or ‘pseudoscientific’, leaving the final sample of 149 documents: articles; book reviews; conference papers; books and book sections.<sup>4</sup> The year of publication ranges from 1958 to 2020, but most (142) were published after 1987. I classified the cases in these documents as follows (legends in parentheses):

Pseudoscience (P), including ‘pseudotechnology’.

Not pseudoscience (NotP)

Science (S)

Not science (NotS) e.g. ‘unscientific’, ‘nonscientific’, ‘antiscientific’.

Other (O) e.g. ‘fringe science’, ‘borderline science’, ‘borderline pseudoscience’, ‘quasi science’, ‘protoscience’, ‘semi-science’.

Unclassified/Ambiguous (U).

Some authors referred to pseudoscience cases addressed by other authors (often in book reviews, or in discussions of the history of philosophy and science), while not

<sup>3</sup>For comparison, the Philosopher’s Index covers 650,000 titles (The Philosopher’s Index [n.d.](#)).

<sup>4</sup>See [supplementary material](#).

taking an explicit stance on these cases themselves. These were not included in the assessments of agreement, so not to tally some documents multiple times, e.g., frequent references to Popper on the matters of Astrology and Freudian Psychoanalysis. They were nevertheless included in the spreadsheet to serve as references for any reproduction efforts (marked with an asterisk). They also demonstrate some of the range of issues being discussed as pseudosciences.

Some rejected the concept of pseudoscience altogether. While this would extend to and beyond every single case contained in the review, classifying them as Not Pseudoscience, I chose to include only those specifically mentioned by these documents, lest giving them disproportionate weight.

Monton notes that constructing lists of pseudosciences inevitably raises issues of interpretation. Several alleged pseudosciences are inherently ambiguous. To some a UFO is an unidentified flying object, to others a flying saucer. Several terms, such as clairvoyance, are not clearly defined (Monton 2013: 470).

In the sample I found Extrasensory Perception (ESP) and Parapsychology to be particularly nebulous. Several authors refer to ESP but rarely specify what forms of extrasensory perception they include in this concept. Those that do, do not necessarily list the same forms of ESP. The same goes for authors who refer to 'Parapsychology' without specifying what they include in the term. Consulting the wider literature for context showed that 'Parapsychology' is used in a variety of ways. To some, it is a short list of special mental abilities: 'Parapsychology is the study of extrasensory perception (ESP), precognition or clairvoyance (the ability to see into the future), and psychokinesis (the ability to move or influence objects with psychic powers)' (Hines 2003: 113). To others it also includes studies of paranormal phenomena involving a human consciousness that exists independently of a body, such as 'mystical experiences, survival of consciousness or the personality after death, and reincarnation ... along with out-of-body and near-death experiences' (Crabtree 2012: 755). And:

Its wide interpretation of psychic and irregular phenomena has been characterized in many ways, as one or more of the following: anomalous experiences, psi powers, déjà vu, apparitions, intuitiveness, auras, altered states of consciousness, psychokinesis, telepathy, elusivity, automatism, bilocations, clairvoyance, premonitions, precognition, postcognition, crystal gazing, unorthodox healing, channeling, mediumship, past-life recalls and reincarnation. (Abi-Hashem 2013: 232)

This means that any agreement (or disagreement) recorded by this review on the pseudoscientific status of ESP and Parapsychology may very well be in name only. Where authors specified what they included in ESP or Parapsychology, or suggested examples thereof, I have marked these categories in addition to the general categories of ESP and Parapsychology.

To assess the level and extent of agreement I formulated the following crude criteria: For there to be an agreement on paradigmatic cases, these cases would have to be classified as pseudosciences by a high number of documents, and by a clear majority, i.e. with fewer documents classifying them in incompatible ways (as either Not pseudoscience, Science, or Other).

To establish an agreement on pseudoscience cases, these cases should be classified as pseudosciences by more than one document, and by a majority of the documents that categorise them. The rationale for this cut-off is simply that it takes at least two to agree. This cut-off is not adjusted to the number of documents in the sample and indicates

only a weak agreement. Being classified as pseudoscience by a higher number of documents would suggest stronger agreement.

If the documents classify most cases in incompatible ways, this will be indicative of extensive disagreement.

### 3. Results

The findings are summarised in the Appendix. The cases classified as pseudoscientific are represented by grey bars. The cases that were incompatible with pseudoscience (Science, Not Pseudoscience, or Other), are accumulated as black bars. The Appendix shows 511 non-discrete potential pseudoscience cases that were discussed, referred to, or categorised by at least one of the 149 documents. Of the 511 cases, 192 were not classified by these documents as pseudosciences. Of the 319 cases classified as pseudoscience, 193 (approximately 60%) were classified by single documents and showed therefore no agreement between two or more documents. Of the 126 cases that were each classified as pseudoscience by at least two documents, 124 were classified as a pseudoscience by a simple majority. Sixty-two out of 319 pseudoscience cases (19%) were classified as pseudoscience by more than 3 documents (2%). The data are available in the [supplementary materials](#).

Some authors were represented with more than one document in the sample, a few with several. These often repeated cases. This is presumably representative of the literature: Authors who specialise in pseudoscience likely reprise examples they consider particularly illustrative, important, or informative. While this effectively inflated the number of some pseudoscience cases, I chose to keep all these documents in the review, because several were co-authored and represented the view of more than one philosopher.

There are a couple of known sources of errors. First, the large number of document-pages increased the risk of making errors, such as overlooking cases mentioned. Also, errors could happen simply by misplacing the legends in the more than 76,000 spreadsheet cells.

Second, it was not always clear how the authors classified the cases. I made these assessments with an eye to their contexts, but I recognise that other readers (and authors) may classify some of these cases differently.

### 4. Discussion

I shall argue the two following points based on this review:

- (1) There is inconclusive evidence of an overall consensus on what cases are pseudoscientific.
- (2) There are indications of a consensus that a handful of cases are paradigmatic pseudosciences.

As noted, this is a review of 'pseudoscience' usage, not of non-usage, and the findings are presumably somewhat skewed towards agreement on pseudoscience cases. Although it is hard to see how authors could address some of the most frequently named pseudosciences (e.g. astrology) without also addressing the controversies around them, the less cited cases ought to be weighed with this context in mind.

The discernible patterns of usage are generally quite weak, except for a few cases: there are numerous potential pseudosciences mentioned, and only some of these are used by more than just 3 or 4 documents. The findings offer insufficient evidence to infer an overall agreement as well as any associated tacit pseudoscience identification skills. However, they do not contradict an overall agreement; there are only few dissenting voices recorded, as illustrated by the black bars in the Appendix.

The frequent usage of some pseudoscience cases indicates that these may be paradigmatic. A random cut-off – being classified as pseudoscientific by at least 10% of the documents – would include: Astrology (classified in 47 documents as pseudoscience/2 documents opposing); Creationism (35/5); Homeopathy (34/1); Intelligent Design (28/3); Parapsychology (24/6); UFO (23/2); Creation Science (19/2); Alternative Medicine (15/1); Ancient Astronauts (15/3).

As mentioned above, some authors were represented by more than one document. This could potentially skew the review. However, when counting these individual contributors rather than their documents, the numbers look rather similar: Astrology (classified by 45 authors as pseudoscience/2 authors opposing); Creationism (29/5); Homeopathy (39/1); Intelligent Design (23/3); Parapsychology (21/6); UFO (21/2); Creation Science (17/2); Alternative Medicine (15/1); Ancient Astronauts (21/3).

The usage of ‘pseudoscience’ and ‘pseudoscientific’ in the philosophical literature demonstrably covers a plethora of phenomena, theories, technologies, and disciplines. The review finds no clear patterns of ‘pseudoscience’ and ‘pseudoscientific’ usage beyond a limited number of cases. Establishing the degree of consensus on these matters will require further studies. The present findings suggest they should focus on establishing what are paradigmatic pseudosciences.

Although extensive, this review does not feature a complete list of potential pseudosciences. Likely, there are hundreds of additional cases to consider. It is doubtful that a recorded agreement would represent clear intuitions or well-founded judgements about their pseudoscientific status. Such surfeit of conceptions may at best invoke knee-jerk reactions when assessed. Also, there will presumably be some agreement due to the vast number of cases. Unless a study demonstrates a strong and extensive agreement, the usefulness of this agreement for identifying criteria, or for justifying further philosophical work on the pseudoscience demarcation project, seems opaque.

Conversely, the review documents a staple diet of pseudoscience cases in the literature. While this review does not address their epistemic status, it does identify a set of cases that are quite possibly paradigmatic pseudosciences. Thus, a simpler and more fruitful strategy would be to identify those paradigmatic cases that will be expected to carry weight when defining ‘pseudoscience’. Not only can these cases serve as litmus tests for attempts at demarcation; their smaller number allows them to be studied in more detail and serve as empirical bases for these deliberations.<sup>5</sup>

## References

- Abi-Hashem N. (2013). ‘Parapsychology, Sects, Cults, and Religious Fundamentalism.’ In T.G. Plante (ed.), *Abnormal Psychology Across the Ages*, Vol. 2, pp. 231–46. Santa Barbara, CA: Praeger.

<sup>5</sup>Thanks to Finnur Dellsén, Sigbjørn Hernes, Hedda Hassel Mørch, Anna-Sara Malmgren, Knut Olav Skarsaune, Stefán Snævarr, Terje Ødegaard, Damian Fernandez-Beanato, participants of the Congrès 2021 de la Société de Philosophie des Sciences, and the two anonymous reviewers for helpful corrections and suggestions.

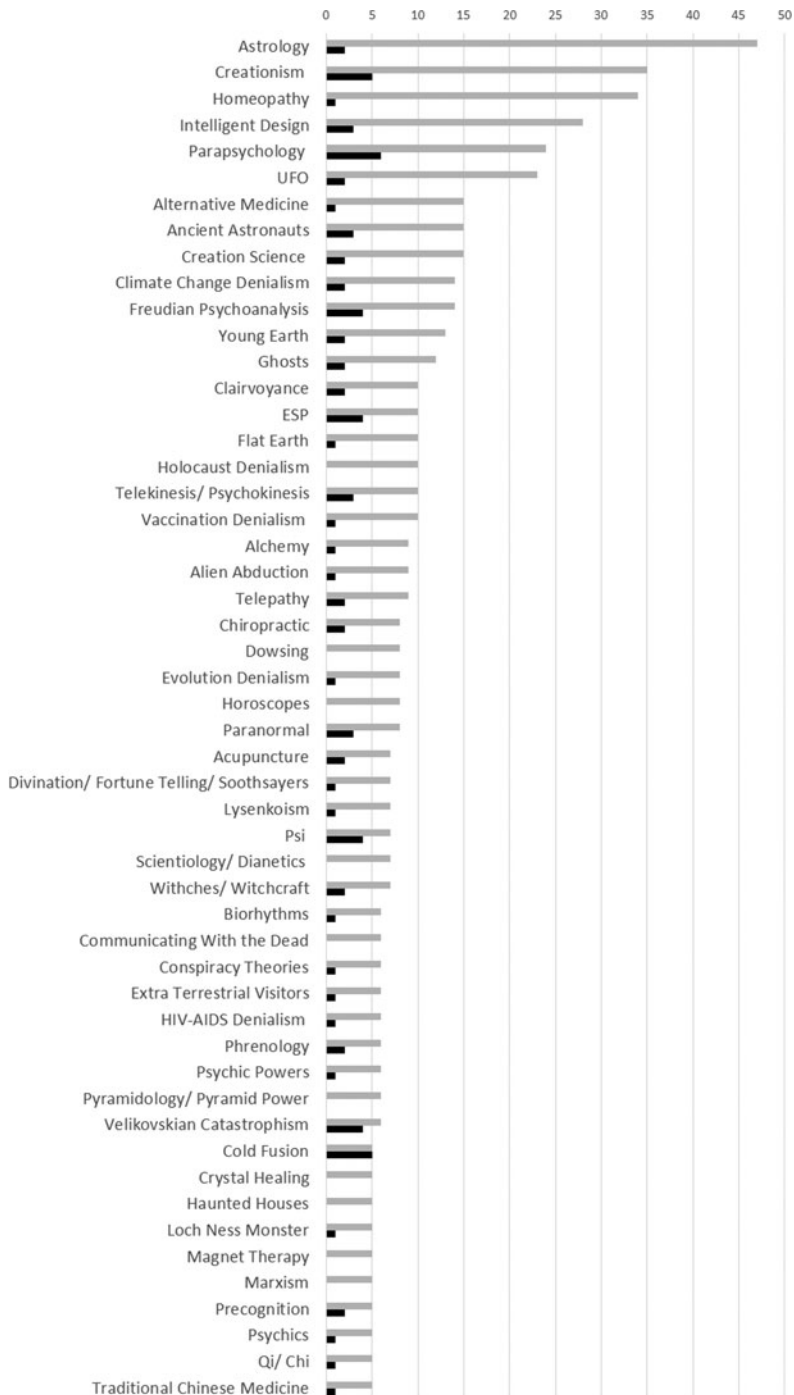


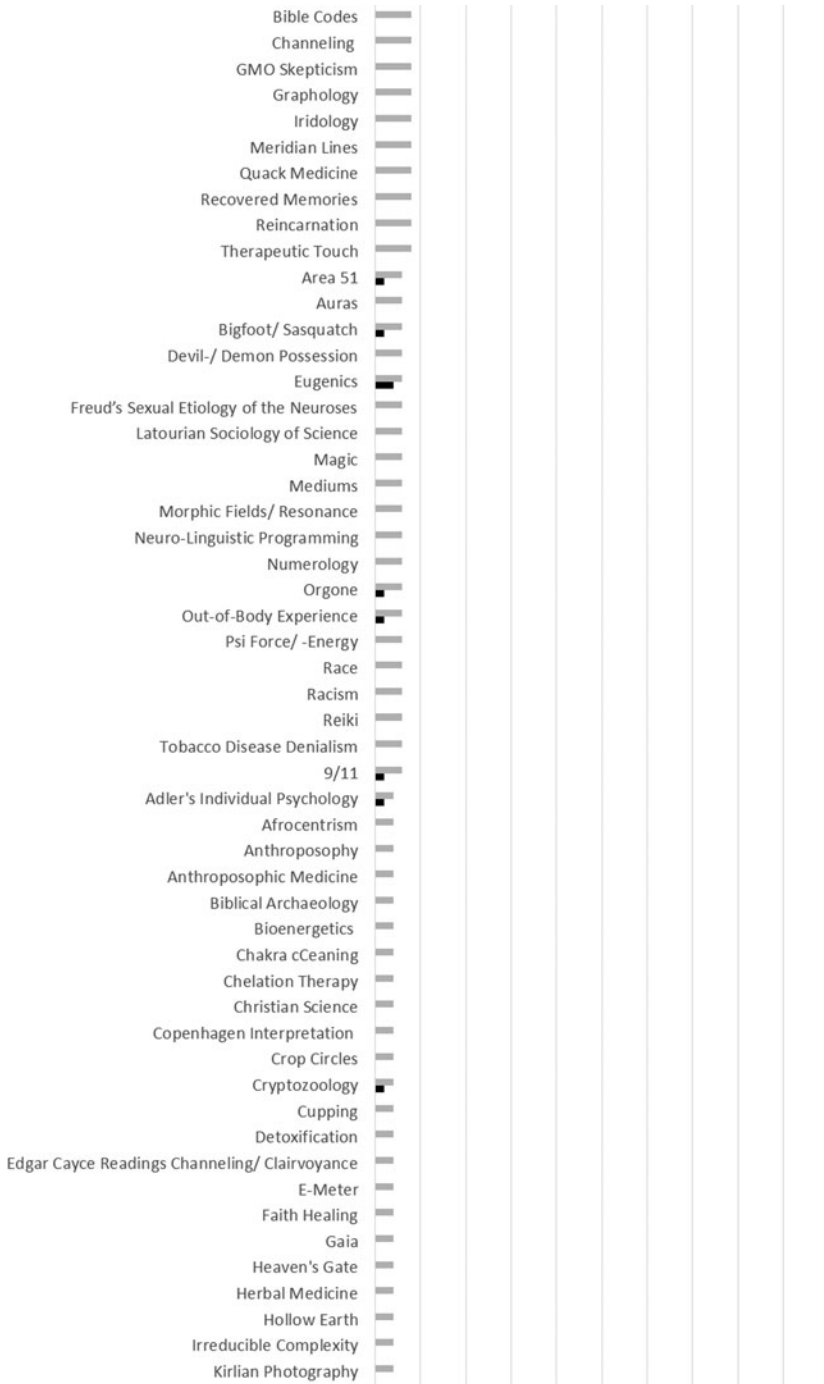
- Brun G.** (2020). 'Conceptual Re-engineering: From Explication to Reflective Equilibrium.' *Synthese*. doi: 10.1007/s11229-017-1596-4.
- Carnap R.** (1962). *Logical Foundations of Probability*. Chicago, IL: University of Chicago Press.
- Crabtree A.** (2012). 'Parapsychology.' In R.W. Rieber (ed.), *Encyclopedia of the History of Psychological Theories*, pp. 754–65. New York, NY: Springer.
- Fasce A.** (2017). 'What Do we Mean When We Speak of Pseudoscience? The Development of a Demarcation Criterion Based on the Analysis of Twenty-one Previous Attempts.' *Disputatio. Philosophical Research Bulletin* 6(7), 459–88.
- Fasce A.** (2020). 'Are Pseudosciences Like Seagulls? A Discriminant Metacriterion Facilitates the Solution of the Demarcation Problem.' *International Studies in the Philosophy of Science* 32(3–4), 155–75. doi: 10.1080/02698595.2020.1767891.
- Garrett B. and Cutting R.** (2017). 'Magical Beliefs and Discriminating Science From Pseudoscience in Undergraduate Professional Students.' *Heliyon* 3(11), e00433.
- Gordin M.D.** (2012). *The Pseudoscience Wars: Immanuel Velikovsky and the Birth of the Modern Fringe*, Vol. 104. Chicago, IL: University of Chicago Press.
- Hansson S.O.** (2009). 'Cutting the Gordian Knot of Demarcation.' *International Studies in the Philosophy of Science* 23(3), 237–43. doi: 10.1080/02698590903196007.
- Hansson S.O.** (2013). 'Defining Pseudoscience and Science.' In M. Pigliucci and M. Boudry (eds), *Philosophy of Pseudoscience: Reconsidering the Demarcation Problem*, pp. 61–78. Chicago, IL: Chicago University Press.
- Hansson S.O.** (2021). 'Science and Pseudo-Science.' In E.N. Zalta (ed.), *Stanford Encyclopedia of Philosophy*. <http://plato.stanford.edu/entries/pseudo-science/>.
- Hines T.** (2003). *Pseudoscience and the Paranormal*, 2nd edn. New York, NY: Prometheus Books.
- Laudan L.** (1983). 'The Demise of the Demarcation Problem.' In R.S. Cohen and L. Laudan (eds), *Boston Studies in the Philosophy of Science. Physics, Philosophy and Psychoanalysis: Essays in Honour of Adolf Grünbaum*, Vol. 76, pp. 111–27. doi: 10.1007/978-94-009-7055-7\_6.
- Mahner M.** (2013). 'Science and Pseudoscience: How to Demarcate after the (Alleged) Demise of the Demarcation Problem.' In M. Pigliucci and M. Boudry (eds), *Philosophy of Pseudoscience: Reconsidering the Demarcation Problem*, pp. 29–44. Chicago, IL: Chicago University Press.
- Monton B.** (2013). 'Pseudoscience.' In M. Curd and S. Psillos (eds), *The Routledge Companion to Philosophy of Science*, 2nd edn, pp. 469–78. London: Routledge.
- MSPSI** (2011). *Informe sobre uso de medicina natural en España*. [www.msrebs.es/novedades/docs/analisisSituacionTNatu.pdf](http://www.msrebs.es/novedades/docs/analisisSituacionTNatu.pdf).
- Nickles T.** (2013). 'The Problem of Demarcation: History and Future.' In M. Pigliucci and M. Boudry (eds), *Philosophy of Pseudoscience: Reconsidering the Demarcation Problem*, pp. 101. Chicago, IL: University of Chicago Press.
- Philpapers** (n.d.-a). 'About PhilPapers.' Retrieved from <https://philpapers.org/help/about.html>.
- Philpapers** (n.d.-b). 'Frequently Asked Questions.' <https://philpapers.org/help/faq.html>.
- Pigliucci M. and Boudry M.** (eds) (2013). 'Why the Demarcation Problem Matters.' In *Philosophy of Pseudoscience: Reconsidering the Demarcation Problem*, pp. 1–6.
- Rationalwiki** (2021). List of pseudosciences. 10 January 2021. [https://rationalwiki.org/wiki/List\\_of\\_pseudosciences](https://rationalwiki.org/wiki/List_of_pseudosciences).
- Shermer M.** (2002). *The Skeptic Encyclopedia of Pseudoscience*. Santa Barbara, CA: ABC-CLIO.
- Sokal A.** (2008). *Beyond the Hoax: Science, Philosophy and Culture*. Oxford: Oxford University Press.
- The Philosopher's Index** (n.d.). 'The Philosopher's Index is the Most Authoritative Online Bibliography in Philosophy.' <https://philindex.org/>.
- Wikipedia** (2021a). 'List of Topics Characterized as Pseudoscience.' 1 February, 06:50 (UTC). [https://en.wikipedia.org/wiki/List\\_of\\_topics\\_characterized\\_as\\_pseudoscience](https://en.wikipedia.org/wiki/List_of_topics_characterized_as_pseudoscience).
- Wikipedia** (2021b). 'Talk: List of Topics Characterized as Pseudoscience.' 12 June. [https://en.wikipedia.org/wiki/Talk%3AList\\_of\\_topics\\_characterized\\_as\\_pseudoscience%2FArchive\\_15?oldformat=true](https://en.wikipedia.org/wiki/Talk%3AList_of_topics_characterized_as_pseudoscience%2FArchive_15?oldformat=true).

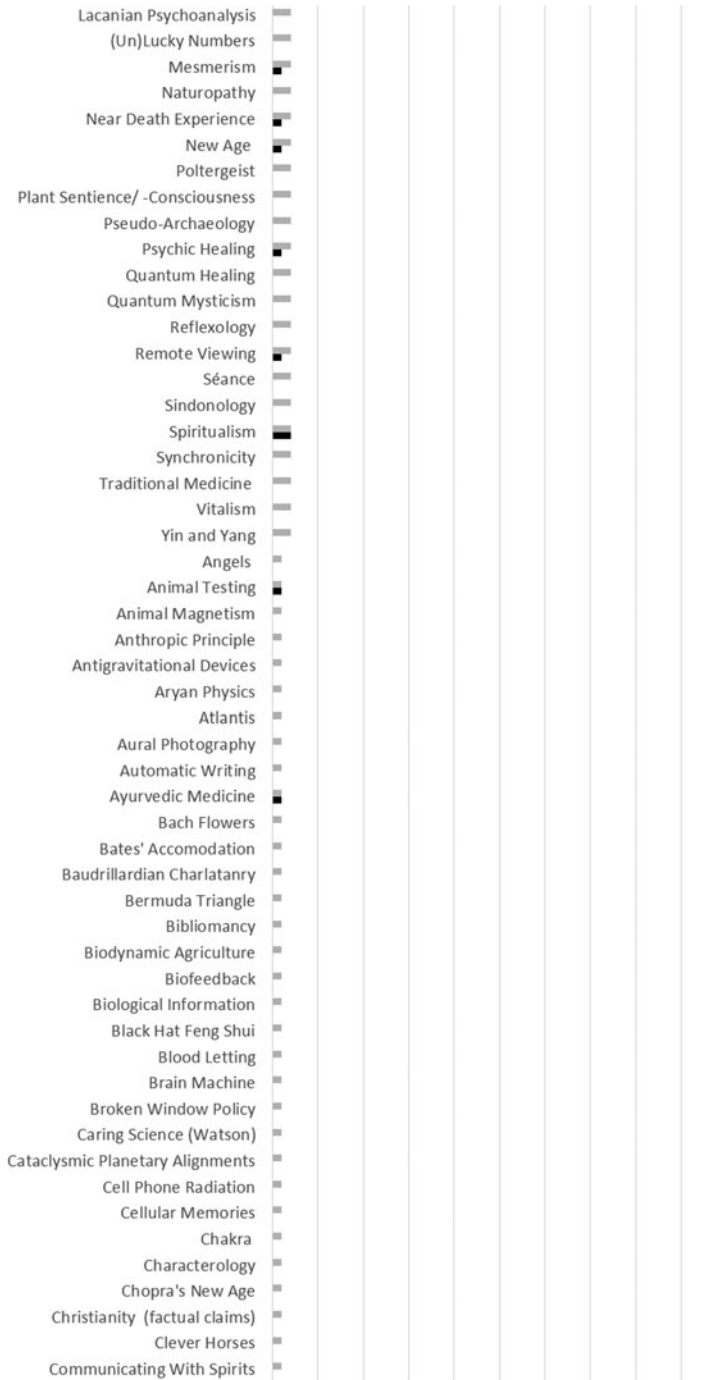
**Kåre Letrud** is postdoc at Inland Norway University of Applied Sciences. His research includes philosophy of science and metaresearch. He is particularly interested in the transparency and functionality of the academic discourse.



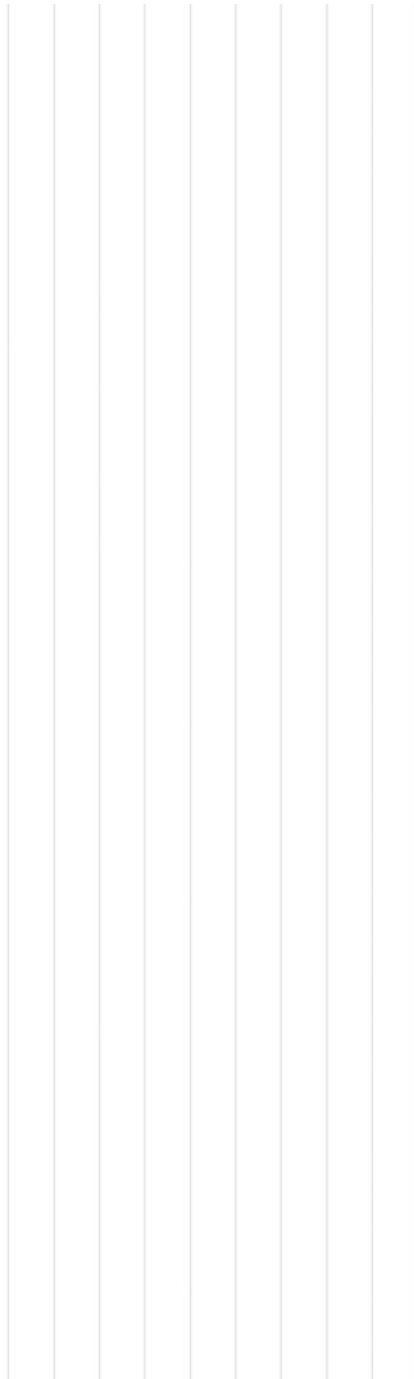
Appendix. Summary of results







Complex Automata	█
Computationist Psychology	█
Constructivist Social Anthropology	█
Craniology	█
Criminogenic Atavisms	█
Critical (Socialist) Science	█
Cryonics	█
Crystal Power	█
Crystal Formation	█
Deconstruction Techniques	█
Deep Ecology	█
Deleuzian Charlatanry	█
Doomsday Predictions	█
Dream Interpretation	█
Earth Rays	█
Ecofeminism	█
Ectoplasmic Materialisation	█
EDTA Chelation Therapy	█
Electromagnetic Hypersensitivity	█
EMDR	█
Energy-Balancing Bracelets	█
Energy Streams	█
Energy Therapy/ -Healing	█
Evil Spirits	█
Evolution	█
Evolutionary Psychology (West coast )	█
Explaining Empirical Phenomena Using Irreducible...	█
Facial Cream With DNA	█
Facilitated Communication	█
Fairies	█
Feng Shui	█
Flatwood Monsters	█
Food Faddism	█
Fortune Cookies	█
Free Energy Machines	█
Garden Fairies	█
Genetic Determinism	█
Germ Theory Denial	█
German New Medicine	█
Gluten-Free Diets	█
Gold From Seawater	█
Guattarian Charlatanry	█
Healing Prayer/ Distance-/ Remote healing	█
Health Foods	█
Health Status Measures by Social Scientists	█
Heaven	█
Hinduism (factual claims)	█
Hindutva	█
History of Science (flawed)	█
Holistic Medicine	█
Hopkinsville Goblins	█
Human Sociobiology	█
I'jāz 'Ilmī Scientific Miracle	█



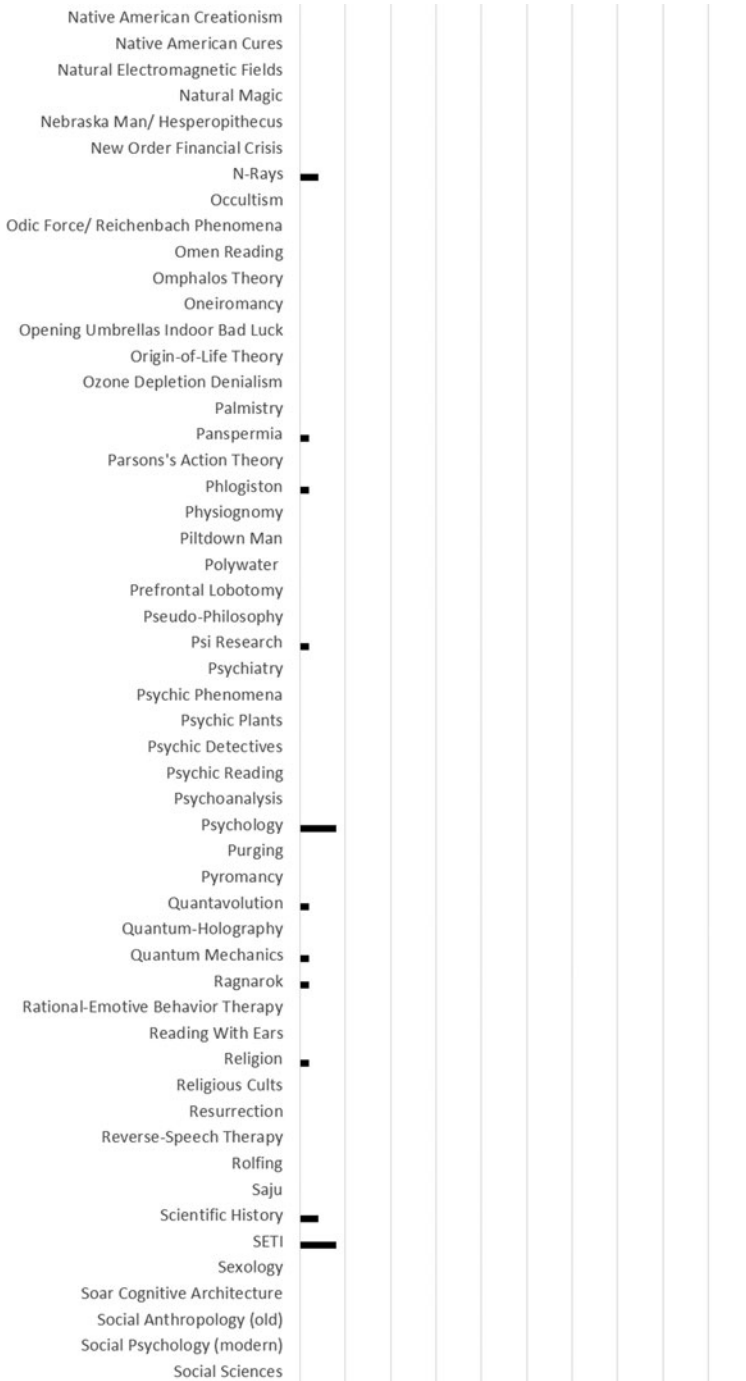


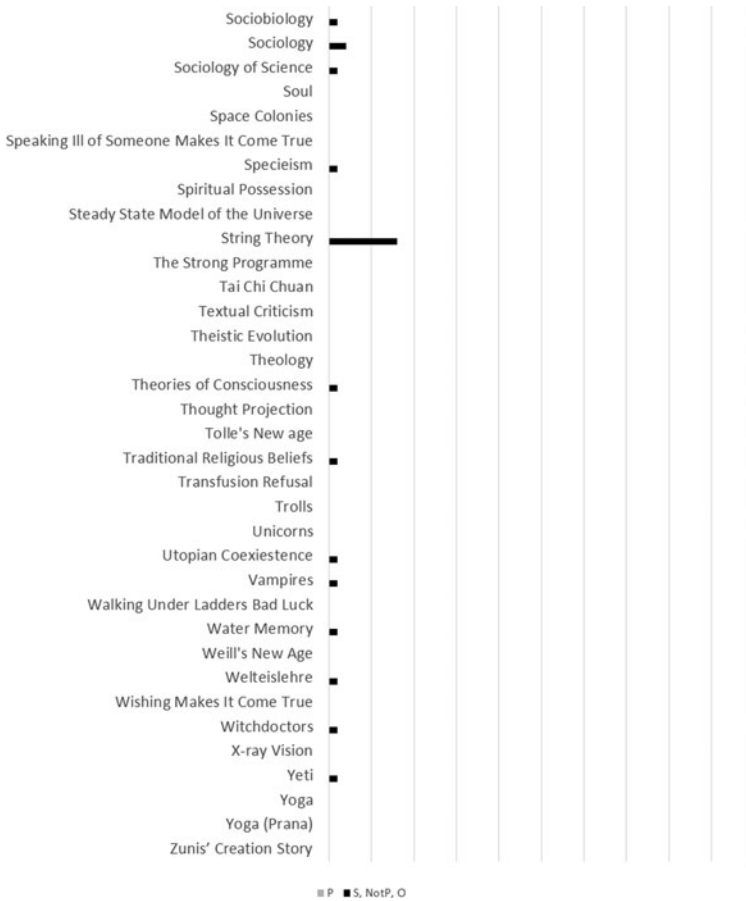












**Cite this article:** Letrud K (2023). Do we Know it When we See it? A Review of ‘Pseudoscience’ Patterns of Usage. *Episteme* 20, 479–496. <https://doi.org/10.1017/epi.2022.17>