РОССИЙСКАЯ АКАДЕМИЯ НАУК
ИНСТИТУТ ФИЛОСОФИИ

EPISTEMOLOGY & PHILOSOPHY OF SCIENCE

ЭПИСТЕМОЛОГИЯ и ФИЛОСОФИЯ НАУКИ

Т. 61 • № 3

Ежеквартальный научно-теоретический журнал

МОСКВА
2024

ISSN 1811-833X (Print)
ISSN 2311-7133 (Online)

ЭПИСТЕМОЛОГИЯ И ФИЛОСОФИЯ НАУКИ

Ежеквартальный научно-теоретический журнал

2024. Том 61. Номер 3

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Учредитель и издатель: Федеральное государственное бюджетное учреждение науки Институт философии Российской академии наук

Периодичность: 4 раза в год. Выходит с 2004 г.

Журнал зарегистрирован Федеральной службой по надзору в сфере связи, информационных технологий и массовых коммуникаций (Роскомнадзор). Свидетельство о регистрации СМИ: ПИ № ФС77-57113 от 3 марта 2014 г.

Подписной индекс каталога Почты России – ПН141

Журнал включен в: Перечень рецензируемых научных изданий ВАК (группа научных специальностей 09.00.00 «Философские науки»); Российский индекс научного цитирования (РИНЦ); Ulrich's Periodicals Directory; ERIH PLUS; Philosophy Documentation Center; Russian Science Citation Index (Web of Science); Web of Science (Core Collection); SCOPUS

Публикуемые материалы прошли процедуру рецензирования и экспертного отбора

Адрес редакции: Российская Федерация, 109240, г. Москва, ул. Гончарная, д. 12, стр. 1, оф. 315

Тел.: +7 (495) 697-95-76; e-mail: journal@iphras.ru; сайт: https://journal.iphras.ru

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ISSN 1811-833X (Print)
ISSN 2311-7133 (Online)

EPISTEMOLOGY & PHILOSOPHY OF SCIENCE

Quarterly peer-reviewed journal
2024. Volume 61. Number 3

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Publisher: Institute of Philosophy, Russian Academy of Sciences

Frequency: 4 times per year. First issue: 2004

The journal is registered with the Federal Service for Supervision of Communications, Information Technology and Mass Media (Roskomnadzor). The Mass Media Registration Certificate No. FS77-57113 on March 3, 2014

Subscription index in the catalogue of Russian Post is ПН141

Abstracting and Indexing: the list of peer-reviewed scientific edition acknowledged by the Higher Attestation Commission of the Ministry of Education and Science of the Russian Federation; Ulrich's Periodicals Directory; ERIH PLUS; Philosophy Documentation Center; Russian Science Citation Index (Web of Science); Web of Science (Core Collection); SCOPUS

All materials published in the "Epistemology & Philosophy of Science" undergo peer review process

Editorial address: 12/1 Goncharnaya St., Moscow, 109240, Russian Federation

Tel.: +7 (495) 697-95-76; e-mail: journal@iphras.ru; website: https://journal.iphras.ru

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2024. Т. 61. № 3. С. 6–20
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 6–20
DOI: https://doi.org/10.5840/eps202461336

НАУЧНОЕ СООБЩЕСТВО: В ПОИСКАХ ВНУТРЕННЕЙ И ВНЕШНЕЙ СВОБОДЫ

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В данной статье проблематизируется состояние современного научного сообщества, которое флуктуирует между стремлением к автономии и творческой свободе, с одной стороны, и ответственностью перед социальными вызовами, с другой. В этом контексте реконструируется социальный смысл эпистемологического анархизма Пола Фейерабенда, обнаруживающий не только критическое, но и позитивное значение для современной науки. Отвечая на двусторонний вопрос: «Какое общество нужно науке и какая наука нужна обществу?», Фейерабенд ставит неутешительный диагноз как обществу, так и науке. Политическое стремление к идеологическому монизму и тоталитаризму получает поддержку со стороны науки, которая порой является одной из форм идеологии – воинствующим рационализмом, исключающим альтернативные точки зрения – и в свою очередь паразитирует на обществе. Разорвать этот круг можно лишь в режиме подлинной плюралистической демократии, которая приведет к изменению понимания науки и ее роли в обществе.

Способность к «остранению» (Б. Брехт), занятию позиции «другого», отказ от захвата интеллектуальной власти – вот ключевые характеристики свободного разума, как его понимал Фейерабенд. Если пытаться реконструировать социальную группу, которая обладает таким разумом, то в социальной проекции она включит в себя маргиналов, дилетантов, ученых, деятельность которых расходится с дисциплинарной парадигмой и нормами стандартного научного этоса. Прекарий – это такой субъект науки, который расшатывает монополию на истину и способствует изменению понимания науки. Ставится вопрос о продуктивности и эффективности научного прекариата в свете концепции науки в свободном обществе, а также о позиционировании данного феномена в контексте текущих дискуссий об экспертном знании, гражданской науке и псевдонауке.

Ключевые слова: наука, монополия на истину, свободное общество, прекариат, эпистемологический анархизм

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SCIENTIFIC COMMUNITY: A QUEST FOR THE INTERNAL AND EXTERNAL LIBERTY

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This article problematizes the state of the contemporary scientific community, which fluctuates between the desire for autonomy and creative freedom, on the one hand, and responsibility to social challenges, on the other. In this context, the social meaning of Paul Feyerabend's epistemological anarchism is reconstructed, revealing not only critical but also positive significance for contemporary science. Answering the two-sided question, "What kind of society does science need, and what kind of science does society need?", Feyerabend gives a disappointing diagnosis of both society and science. The political desire for ideological monism and totalitarianism is supported by science, which is sometimes a form of ideology – a militant rationalism that excludes alternative points of view – and in turn parasitizes society. This circle can only be broken in a regime of genuine pluralist democracy, which will lead to a change in the understanding of science and its role in society. The ability to "defamiliarize" (B. Brecht), to take the position of the "other", to refuse to gain intellectual power – these are the key characteristics of free reason, as Feyerabend understood it. If we try to reconstruct a social group that possesses such a mind, then in the social projection it will include marginal people, dilettantes, scientists whose activities diverge from the disciplinary paradigm and norms of the standard scientific ethos. A precarian is such a subject of science that breaks the monopoly on the truth and contributes to changing the understanding of science. The question is raised about the productivity and effectiveness of the scientific precariat in relation to the concept of science in a free society, as well as to the positioning of this phenomenon in the context of current discussions about expert knowledge, citizen science and pseudoscience.

Keywords: science, monopoly of truth, free society, precariat, epistemological anarchism

Свободная наука: рациональность или анархизм?

Наука – это социальный институт, который, вероятно, наиболее ярко демонстрирует амбивалентность в условиях социальной нестабильности. С одной стороны, за наукой закреплена роль разумного законодателя, обеспечивающего основания для рационального, следовательно, общезначимого выбора, т.е. ответственного за поддержание порядка и устойчивости. С другой стороны, наука – это территория свободы, высшая ценность которой – поиск нового знания, открытие и создание новых возможностей для теоретической и практической деятельности.

У истоков Новоевропейской науки, как известно, стояли практики экспериментирования, уходящие корнями в алхимию. Однако интервенции в природу имели свою цену. Томас Кун назвал новые экспериментальные науки «бэконианскими» в противоположность абстрактным математическим наукам, которые удовлетворялись мысленным экспериментированием. Но именно Бэкон говорил не только о насильственном «испытании природы» в эксперименте; он высказался и о принципиальном ограничении научного вмешательства: мы можем властвовать над природой в той мере, в какой мы подчиняемся ее власти (законам). В этой идее заложен последующий научный рационализм, распространивший влияние на наше понимание не только природы, но и общества. Роль разума, воплощенного в науке как верховном законодателе, подчеркивали философы Просвещения. Данная роль обеспечивалась изоморфными и прозрачными отношениями между разумом и миропорядком. Систематическое применение разума, познание по правилам соответствует порядку природы, и потому оно есть единственное надежное средство установления контроля над природой и обществом.

Таким образом, ориентация на внешний порядок сопрягалась с внутренним порядком научного исследования. Научный метод, задающий познавательные стандарты, стал неотъемлемой частью институционального этоса, в рамках которого свободное творчество и коллективизм (обезличенность, ценностная нейтральность, универсализм) оказались странным образом неотделимы друг от друга. Если любитель реализует стихийный аспект творчества, то ученый-профессионал призван реализовать его регулярный и даже формальный аспект. Вербовка новых членов научного сообщества осуществляется через соответствующее образование, цель которого – закрепление стандартов и самовоспроизводство института науки. Методологическое и институциональное принуждение создает и поддерживает социальную автономию науки, на которой основывается ее авторитет: она является единственной легитимирующей инстанцией, способной нивелировать разногласия за счет устранения ценностных предпочтений.

Наведение порядка, однако, тоже имеет свою цену. Принуждение, какие бы формы оно ни принимало, реализует, говоря словами У. Бека, «негативную логику отторжения» («наука – конструктор табу» [Бек, 2000]). Запретительная функция науки как всеобщего жандарма, стоящего на страже рациональности, вступает в конфликт с «положительной логикой присвоения», т.е. развития как обогащения и расширения собственной территории за счет интегрирования нового опыта, включения разных позиций и т.п. Универсализм, на котором настаивает наука, открывается и с противоположной стороны: как аккумуляция различий, составление общего мира, в котором каждой традиции и каждому голосу найдется место.

В нашу эпоху социальных потрясений и стремительной ломки многих социальных механизмов, которые еще недавно считались вполне устойчивыми, растет спрос на новые формы социальной регуляции. Они призваны не упростить ситуацию и ликвидировать проблему, но расчленить ее на задачи применительно к разным контекстам, в которые она погружена. Объективная сложность ситуации нуждается в сложных способах ее разрешения, хотя это и кажется странным на первый взгляд. Здравый смысл подсказывает простое решение: когда на улице беспорядки, зовите полицию, которая изолирует нарушителей. Но общество постмодерна демонстрирует нам теснейшее переплетение взаимозависимых форм жизни. Беспорядок проявляет себя в чрезвычайно запутанных отношениях между социальными институтами, противоречивыми нормами и тенденциями, «независимыми» инстанциями, «автономными» практиками и т.п. Рассуждая о науке, приходится говорить об идеологии и политике, рассуждая о политике, невозможно не говорить об индустрии, виртуальной валюте, медицине («биг фарме»), образовании, ВПК, экологии и т.д. (У. Бек, Б. Латур). Не только социологи, но и философы науки, и ученые, со своей стороны, фиксируют эту неуклонно возрастающую сложность мира. Тривиальная задача «позвать полицейского» в нынешней ситуации становится совсем не простой. Какие опознавательные знаки должны быть выгравированы на его жетоне?

Одним из первых философов науки, категорически отказавшим последней в праве на «ношение жетона», был Пол Фейерабенд[1], и отнюдь не потому, что он делегировал это право кому-то другому. Его так называемый «антисциентизм» питался эпистемологическим плюрализмом, политическим либертарианством и крайним неприятием любых форм принуждения как препятствующих развитию человека и общества. Вступивший на философское поприще в кругах, близких школе критического рационализма Карла Поппера, Фейерабенд вскоре превратился в непримиримого критика Поппера и попперианцев, поскольку разглядел за призывом к «рациональной дискуссии» пропаганду гегемонии науки и подмену свободного волеизъявления воинствующим рационализмом.

[1] Фейерабенд Пол (Пауль) Карл (Feyerabend, Paul Karl, 13 января 1924, Вена – 11 февраля 1994, Женолье, Швейцария) – австро-американский философ, влиятельный представитель постпозитивизма, автор концепции «эпистемологического анархизма». Основное место работы – профессор философии в Калифорнийском университете в Беркли. Его взгляды созвучны французскому постмодернизму в критике «больших нарративов», идеологического и научного мейнстрима, экспертно-научного истеблишмента. Основные труды: Against Method: Outline of an Anarchistic Theory of Knowledge (1975); Science in a Free Society (1978); Farewell to Reason (1987). Труды Фейерабенда переведены на многие языки, включая русский.

Задача К. Поппера, переосмысливавшего программу Венского кружка, на деле же состояла в дальнейшем обосновании интеллектуальной свободы через демаркацию науки от метафизики. Закабаление культуры иррациональными настроениями после Первой мировой войны поставило людей в зависимость от человеконенавистнической пропаганды и в итоге от авторитарных режимов. По мысли Поппера, наука свободна лишь в «третьем мире», независимом от физических и социальных ограничений, и идеал рационального исследования ведет ученого именно туда.

«Пропаганда» в отношении разума и науки – это, для Фейерабенда, одно из зол, отвратительное жульничество, которое маркирует нечистоплотных интеллектуалов, прикрывающих лакуны своих рациональных конструкций фиговыми листками пафосных лозунгов («Поппер… был только пропагандистом», – сожалеет Фейерабенд [Фейерабенд, 2009, с. 170]). Из-за спины пропаганды выглядывают идеология и догма – унылые признаки закостеневшей рациональности, дегенерирующей исследовательской программы (И. Лакатос), забывшей или старающейся забыть о своей изначальной связи с творческой энергией и разменявшей свободу на власть и порядок. Одновременно пропаганда может играть позитивную роль, по мнению Фейерабенда, создавая своего рода стартап для возникающей и прогрессирующей (опять-таки в терминах И. Лакатоса) исследовательской программы, когда еще не накоплена конкурентная эмпирическая база и не создана разработанная теория.

Антагонистом пропаганды, как ни парадоксально, тоже выступает рациональность. Серьезная претензия, которую Фейерабенд адресует воинствующим рационалистам, состоит в том, что их притязания на превосходство науки необоснованы: «Рационалисты и сциентисты не могут рационально (научно) обосновать уникальное положение их любимой идеологии» [Там же, с. 115]. Обвинения в отсутствии обоснования Фейерабенд предъявляет сциентистам не раз и не два. Будь Фейерабенд последовательным «иррационалистом» (хотя «последовательный иррационалист» – это, скорее, оксюморон), разве могло бы отсутствие обоснования в пользу какой-либо точки зрения свидетельствовать против нее? Попытаемся интерпретировать Фейерабенда следующим образом. Идеология и догма – это защитные стены, которые рациональность возвела против самой себя. Они не позволяют ей соизмерить себя с собственными принципами, делают ее глухой и слепой по отношению к собственной «изнанке», т.е. к историческим, политическим и социальным условиям ее возможности. Свободный разум некогда готов был покинуть обетованную землю несокрушимого знания и отправиться в рискованное путешествие в поисках альтернатив утвержденным авторитетам. Разум не стыдился признаваться в невежестве и испытывать на прочность «возможные миры». В этом заключалась критическая работа обосно-

вания, которое в науке выступает под именем не только теории, но и гипотезы: выйти за пределы общепризнанного, посмотреть на него со стороны, выдвинуть альтернативу. Но если сциентисты прибегнут к такому обоснованию, то им придется расстаться со своей уникальностью как властью верховного законодателя.

Фейерабенд, однако, разрывает этот порочный круг собственными усилиями. Он вписывает себя (ретроспективно) в набирающую силу традицию расширяющего универсализма, т.е. такой науки (и научной рациональности), которая, аккумулируя новый опыт, продолжает обучаться и изменяться. Фейерабенд тщательно коллекционирует факты и выстраивает аргументы против единого фиксированного научного метода в поддержку идеи методологического плюрализма и анархизма. Наука преуспевала (была эффективна, добивалась значимых результатов, осуществляла прорывы) тогда, когда ученые нарушали правила. Коперник извлек из музейных запасников истории мысли мистическую веру в фундаментальный характер кругового движения и обратил ее против «единственно возможной» картины мира Аристотеля – Птолемея. Галилей ничтоже сумняшеся прибегал к гипотезам ad hoc, если этого требовала логика момента. Он к тому же возвел сомнительное техническое устройство (телескоп) в ранг научного метода, невзирая на противоречия, которые это решение влекло за собой. Эйнштейн отталкивался не от эксперимента, а от предположения и предлагал возвысить его до принципа [Фейерабенд, 2007; 2009]. История науки предоставляет множество примеров того, что ученые отступали от методологических стандартов и общепризнанных норм. И более того – если бы стандарты и нормы последовательно соблюдались, научные открытия были бы невозможны.

Не стоит думать, что Фейерабенд защищает агрессивный волюнтаризм такого ученого, для которого все средства хороши, если они приводят его к победе над оппонентами. Его точка зрения далеко не так прямолинейна. Ряд современных исследователей сближает позицию Фейерабенда с эпистемическим волюнтаризмом [Kuby, 2021; Kusch, 2021], проблематика которого родственна эпистемологии добродетелей. Эпистемический волюнтаризм настаивает на том, что мнения (убеждения) выбираются в контексте ценностных предпочтений (традиций, в широком смысле). «Галилей победил благодаря своему стилю и блестящей технике убеждения… благодаря тому, что обращался к людям, пылко протестующим против старых идей и связанных с ними канонов обучения» [Фейерабенд, 2007, с. 33]. Иначе говоря, Галилей победил, потому что встретил и почувствовал свою аудиторию, потому что новые идеи «витали в воздухе» и общество (и научное сообщество) в определенной мере дозрело до их принятия. Энтузиазм одиночки, нарушающего правила, встречается здесь с механизмами социального признания.

В чем же, мы спросим, отличие жульничества пропагандистов науки от незаконных апелляций к внешним факторам, риторических приемов, технических уловок и т.п., к которым прибегают ученые? Когда расшатывается одна традиция, на ее место заступает другая, но не мгновенно. Над созданием традиции нужно работать, завоевывая сторонников, а значит, в каком-то смысле, подстраиваясь под них и выдавая желаемое за действительное. Способность традиции изменяться, усваивая исторический и социальный опыт, демонстрирует сам Фейерабенд: его аргументация разворачивается в рамках исторического и дескриптивного анализа науки, т.е. науки как она в действительности (в отличие от сциентистских спекуляций) существовала и практиковалась. Фейерабенд – не враг науки, он протестует против ее философского (позитивистского) образа [Kidd, 2021]. Отвернувшись от противоречий истории науки, создатели и защитники этого образа отвернулись от самого разума, который свободно реализует себя только в пространстве рискованного предприятия, покидая твердую почву надежного знания.

Сциентисты (к которым Фейерабенд относил прежде всего современных ему философов науки) не только создают догматический образ науки, они также приветствуют догматизм в реальной научной практике как необходимый элемент эффективного научного исследования. Критика Фейерабенда, направленная на позитивистов и Поппера, затрагивает также и Куна, который защищал продуктивность догмы на стадии парадигмы. Фейерабенд оппонирует Куну на его же, Куна, площадке истории науки, выводя из исторических дескрипций иной нормативный образ науки как деятельности, свободной от предписаний, которая достигает успеха, лишь опрокидывая нормы и правила. С этой точки зрения, даже Кун, с которым впоследствии Фейерабенда часто сближали, оказывается одним из конструкторов сциентистского мифа науки, оторванного от реальной истории и практики научного поиска.

Прошел ли сам Фейерабенд до конца обозначенный им путь обучающейся рациональности, которая, усваивая исторический и социальный опыт, создает новые нормы и стандарты с тем, чтобы вновь подвергнуть их критическому исследованию? Не остался ли он как минимум отчасти в плену мифа науки в своих настойчивых попытках отделить историю науки от ее философского образа? История науки, рассказанная Фейерабендом, была призвана опрокинуть философские спекуляции о науке, столкнув их лицом к лицу с упрямыми фактами. Однако упрямые факты, как Фейерабенду, прошедшему постпозитивистские университеты, должно было быть хорошо известно, зависят от еще более упрямых интерпретаций. Поэтому миф о науке не так легко опровергнуть. Отстаивая исторически данную науку как территорию свободы, Фейерабенд воюет с современной наукой, смешивая в противоречии с собственными установками ее

нормативный (философский) образ и ее актуальные практики. Какую науку Фейерабенд предлагает отделить от государства – науку Карнапа, Поппера и Куна или науку Коперника, Галилея и Эйнштейна? Какая традиция науки (а наука – это, по Фейерабенду, одна из традиций) навязывает обществу свою власть? Та, в которой исторически закрепилась методологическая и институциональная автономия, или та, которая вербует сторонников, как в свое время Галилей, прислушиваясь к их чаяниям, подстраиваясь под них? Какую науку следует поставить под общественный контроль – ценностно-нейтральную, производящую дистиллированный продукт, очищенный от всего социального, или науку, вовлеченную в общественные отношения, «слишком человеческую», разделяющую с обществом и его пороки, и его добродетели?[2] Ответы на эти вопросы во многом определяются целевой группой – теми воображаемыми сторонниками, к которым обращается и чьи интересы представляет Фейерабенд. Он об этом не говорит напрямую и заставляет нас искать ответ.

Король в поисках свиты: возможно ли «сообщество анархистов»?

В эпоху социальных трансформаций фигура ученого как верховного законодателя, посредника между Природой и людьми, символический персонаж, с которым Фейерабенд продолжает вести борьбу, теряет авторитет. Наука сегодня сама нуждается в посреднике, способном обеспечить ее обратной связью с результатами ее деятельности, которые выходят из-под контроля и преобразуются в острейшие социальные противоречия и конфликты. Фейерабенд ответил на этот вызов артикуляцией решительного сдвига философии науки – высокоспециализированной философской дисциплины – за пределы традиционных проблем структуры и развития науки. Он детально показал, насколько постановка и обсуждение внутренних проблем инспирированы внешними контекстами и оказываются для них в высшей степени релевантными, хотя для большинства ученых в то время это было неочевидно. Сегодня же мировая университетская

[2] В ряде текущих дискуссий о роли экспертного знания эта контроверза усиливается. Спор идет о том, должны ли ученые делегировать оценочные суждения не-экспертам или они сами должны оценивать важные для общества последствия своих действий [Brown, 2021]. В первом случае постулируется, что наука ценностно нейтральна, и тогда именно не-экспертам следует судить о ней; во втором – что она ценностно нагружена, но тогда сами ученые отвечают за общественно значимые последствия своих внутринаучных решений. Иными словами, если наука автономна, то она не авторитетна, и, наоборот, если она авторитетна, то она неавтономна.

наука, не в последнюю очередь и в США, испытывает множественные шоки. С. Тернер перечисляет наиболее драматические из них: «Шоки включают в себя “недобор зачисления”, ожидаемое снижение числа студентов по давно известным демографическим причинам; неожиданно быстрое сокращение числа учащихся по гуманитарным наукам, особенно по истории; признание того, что молодежь изменила свои предпочтения и не хочет поступать в колледжи; одновременный и связанный с этим поворот против идей свободы и воука[3]; быстро растущий скептицизм в отношении медицинского исследовательского истеблишмента в результате признанной неспособности вакцин против Covid предотвратить болезнь, и разоблачение ложных нарративов о его происхождении, которые официально продвигались; здесь же и молчание академии, зависящей от грантов, и запугивание тех, кто высказывался; резкая инфляция цен и спектакль видных ученых-экономистов, минимизирующих то, что было частью повседневного опыта людей; продолжающиеся кризисы управления в университетах, когда президенты уходят в отставку, а в дело вмешиваются политики и спонсоры» [Turner, 2024, p. 115].

Фейерабенд вошел в круг тех интеллектуалов, которые требовали внешней открытости философии и гуманитарной науки вообще и демонстрировали возможности такой восприимчивости и обращенности вовне. Отныне статус «кабинетной философии» (armchair philosophy – англ.) основательно пошатнулся, пусть и не для того, чтобы окончательно рухнуть, но хотя бы поискать для себя более устойчивое основание. Это сказалось не только на взаимоотношении философии и других социально-гуманитарных наук (экономики, политической мысли, религио- и востоковедения, теории искусства). Изменилась и структура самого философского дискурса: философия науки проложила тропинки к философии сознания, философской антропологии, социальной философии и философии культуры.

Фейерабенд критикует философию науки за упрощенный, стерильный, идеализированный образ науки, пресловутую башню из слоновой кости, игру в бисер (Г. Гессе). Настоящая наука значительно сложнее, в ней смешаны разные тактики и практики: «Даже наиболее рафинированный рационалист будет вынужден отказаться от рассуждений и использовать пропаганду и принуждение и не вследствие того, что его доводы потеряли значение, а просто потому, что исчезли психологические условия, которые делали их эффективными и способными оказывать влияние на других» [Фейерабенд, 2007, с. 44].

[3] Воук (от англ. woke, прошедшее время от глагола «проснуться») – неологизм, терминологическая калька политического жаргона, происходящая от афроамериканского английского, обозначающая усиленное внимание к вопросам, касающимся социальной, расовой и половой справедливости.

Для Фейерабенда особенно важно, что наука (культура вообще) являет свою подлинность не благодаря, а вопреки ограничениям научной методологии. Самая свободная свобода – это свобода в культуре, и символ ее для Фейерабенда – дадаизм, известное авангардистское течение в искусстве. Данная установка позволяет заявить: «Специалисты и неспециалисты, профессионалы и любители, поборники истины и лжецы – все участвуют в этом соревновании и вносят свой вклад в обогащение нашей культуры» [Фейерабенд, 2007, с. 50].

В более позднем издании «Против метода», пришедшемся на мировой кризис 1992 г., Фейерабенд уточнил свою позицию в отношении научной рациональности: «Разуму нужно придать больше веса не потому, что он всегда играл фундаментальную роль, но потому что это представляется нужным для формулировки более гуманистического подхода в обстоятельствах, которые частенько имеют место сегодня (хотя и могут исчезнуть завтра)» [Feyerabend, 1993, p. 13ft.]. То, что и ранее можно было обнаружить при внимательном чтении, в свете данной цитаты особенно ясно. Фейерабенд направляет острие критики не на саму науку в точном смысле, которая значительно богаче любых ее «рациональных реконструкций». Он, скорее, ведет нескончаемый спор с авторами этих реконструкций, в конечном счете служащих обоснованию теоретической и социальной легитимности научного реализма и критического рационализма – столпов консервативного интеллектуального истеблишмента. Фейерабенду последний был хорошо знаком изнутри, и он в самом начале своей карьеры отказался от следования его правилам, отклонив предложение стать ассистентом своего учителя, Карла Поппера.

При этом последовательность и самостоятельность Фейерабенда простиралась еще дальше. В послевоенной культурной жизни особую роль играл театр. Это была область смелых экспериментов, которые разрушали каноны драматических жанров. Театр захватил миграционный архетип, и драматурги отправились в рискованное путешествие для открытия новых культурных пространств. Их вело влияние экзистенциалистских концепций и одновременный рост недоверия к унитарной идеологии, что побуждало к поискам синтеза эпоса, лирики и драмы. Трагикомедия, интеллектуальная притча и театр абсурда стали символами этой эпохи. Фейерабенд в это время изучал театр и был увлечен его критическим и рефлексивным пафосом. Много позже из-под его пера вышла статья с характерным названием «Театр как инструмент критики идеологий» [Feyerabend, 1967]. Однако он не принял предложение Бертольда Брехта стать его ассистентом, предпочтя необеспеченную свободу.

Умение набрать дистанцию от объекта и себя самого, практиковать остранение, взгляд на себя со стороны и быть готовым расстаться с монополией на истину и власть – это и есть параметры интеллектуальной свободы, по Фейерабенду. Вероятно, он подписался бы

под известным лозунгом «Философия – дело свободного человека». Фейерабенд трактовал этот тезис индивидуалистически и был чужд школ и идейных группировок. Эпистемологический анархизм, как он полемически назвал свою концепцию, отвергает всякое коллективное мышление, принимая лишь одно правило: «все дозволено». В этом смысле у такой концепции в принципе не может быть последователей, и если они появятся, то они будут ее лишь апологетически искажать.

И потому вопрос о социальной группе, которая могла бы быть восприимчива к идеям Фейерабенда, не слишком легитимен с его собственной точки зрения. Но если следовать духу его идей, то единственный выход – выйти за их пределы и попытаться все-таки реконструировать социальную группу, которая обладает таким «свободным разумом». Мы полагаем, что в социальной проекции она выражается в деятельности своеобразных ученых, «имеющих не вполне обычную биографию» [Фейерабенд 2009, с. 148]. Не связанные коллективной идеологией, странные с точки зрения институциональных и методологических норм личности оказываются в состоянии выдвигать абсурдные идеи и видеть мир в новом свете. Обращенные к сообществу ученых как своей референтной группе, они одновременно представляют его социального оппонента – индивидов и коллективы, которые не выдерживают «напора модернизации» и сопротивляются принуждению к порядку, поскольку больше не считают этот порядок значимым.

Нами выдвигается гипотеза о продуктивности и эффективности научного прекариата в свете концепции науки в свободном обществе. О прекариате как особой социальной группе написано достаточно много; иное дело – тема научного прекариата [Mauri, 2019; Vatansever, 2020]. В лучшем случае этот феномен привлекает общественное внимание в связи с недофинансированием науки и социальной незащищенностью многих ученых [Precarity Paper, 2021]. Однако внимание к научному прекариату позволяет по-новому посмотреть на известные дискуссии об экспертном знании, гражданской науке и тех институциональных изменениях, которые происходят в современной науке.

Вопрос о природе научного прекариата вовлекает в сферу философии науки целый спектр актуальных контроверз политической экономии науки, этики и политики науки. Речь идет о таких феноменах, как несправедливость, принуждение, зависимость применительно к познанию и к социальному бытию науки. Так, сегодня в рамках феминистской эпистемологии женщины-ученые фактически объявляются своего рода прекариями, условия работы которых заведомо хуже, чем у мужчин. Хелен Лонжино в своем докладе на Международном конгрессе по логике, методологии и философии науки в Праге, 2019, привела цифры вовлеченности женщин в науку, хотя и отказалась их проинтерпретировать. По ее данным, в США

и Бельгии всего 30% ученых женского пола, а в Иране и Азербайджане – 70%. Ситуация, казалось бы, парадоксальная: в демократических странах процветает дискриминация женщин в науке, а в авторитарных – наоборот. Но как только мы посмотрим на престиж науки как профессии в этих странах, все становится на свои места. В развитых демократических странах наука – исключительно престижное дело, и 30% женщин в науке является большим достижением борьбы женщин за свои права. В исламских странах, напротив, наука не является престижной мужской профессией, и ее легко отдают на откуп женщинам, имеющим заведомо более низкий социальный статус, чем мужчины.

Еще один пример представляет академическая контроверза «свобода – зависимость»; речь идет о дискуссиях вокруг постоянного университетского контракта (tenure). Наука – существенная часть рыночной экономики – так гласит кредо идеологии неолиберализма. Последний преобладает в развитых странах, где наука развивается особенно эффективно и быстро. Это дает основания заключить, что основными критериями оценки научных исследований должны выступать свойства прибыльного предприятия – эффективность и инновативность. И потому именно они оказываются ключевыми при составлении и заключении постоянного трудового договора с исследователем. Постоянный контракт, который предполагает включение в штат университета или лаборатории (faculty member), – наиболее востребованная среди ученых форма трудоустройства, но именно он последние десятилетия попадает под удар, в частности в США и Великобритании.

Дискуссия, противопоставляющая идеал гумбольдтовского университета стандартам предпринимательского университета, часто имеет своим предметом вопрос о сохранении постоянного контракта в науке и образовании. Аргументы в пользу tenure гласят, что он «остается лучшей защитой свободы исследования и разнообразия мнения (heterodoxy) для университетских преподавателей, в особенности в эти времена повышенной поляризации и интернет-взрыва. Давайте ремонтировать это, а не ломать» [Skoble, 2019, p. 210]. Аргументы против tenure состоят в том, что необходимо мотивировать заинтересованность в эффективной, интенсивной работе в команде на фоне наблюдаемого снижения уровня образования и исследования, а постоянный контракт как раз и ограждает профессора от таких требований.

Однако престиж западных университетов зиждется именно на высоком социально-научном статусе профессора, и современная Германия, где профессор является государственным чиновником (der Beamte) и находится до самой пенсии на бессрочном контракте, тому яркий пример. Характерное английское выражение award of tenure (удостоенный контракта) подчеркивает особый «наградной статус»

постоянного контракта. Это не просто принятый на работу (hired) сотрудник, а поднятый на самую вершину университетской иерархии. Неудивительно, что университетский преподаватель и ученый-исследователь являются наиболее престижными из всех профессий в США и Великобритании.

С постоянным контрактом связаны уникальные возможности для работы, а многолетняя подготовка к такой должности прививает будущему профессору ряд амбивалентных добродетелей и грехов. Эта смесь филистерского и аристократического этоса вполне соответствует известным девяти парам этоса, описанного Р. Мертоном [Merton, 1976, pp. 56–94], а с другой, инспирировала отказ от tenure со стороны научной администрации [Касавин, 2022]. Ученые без постоянного контракта и в то же время не склонные к конформизму вытесняются из научного сообщества в разряд маргиналов-прекариев. В монолитном сообществе исчезают моральные контроверзы – подлинный источник научного этоса. Этическая рефлексия, критика и выбор нуждаются в многообразии моральных и аморальных примеров. Фейерабенд подчеркивает ценность моральной девиации, морального порока, без которых поведение в рамках всякого, в том числе и научного, этоса вырождается в банальный конформизм.

Феномен научного прекариата претендует на роль искомого Фейерабендом оппонента по отношению к научным экспертам, монополизировавшим знание. Нынешний рост удельного веса прекариата – это симптом глубоких сдвигов в социальной структуре, которые вносят изменения в трудовые отношения и трансформируют механизмы социального признания. Эта прослойка занимает двойственную позицию. С одной стороны, прекарий – жертва модернизации, вышедшей за пределы классического индустриального общества и оставившей в прошлом его социальные гарантии. С другой стороны, прекарий – ее бенефициар, в значительной степени свободный от институциональных обязательств, а значит, от правящей идеологии.

Прекариат охватывает сегодня до половины трудоспособного населения и имеет тенденцию к росту. Научный прекариат – это периферия научного сообщества: исследователи и практики, не имеющие постоянной занятости в государственных или бизнес-структурах. Это независимые исследователи, фрилансеры или самозанятые, работающие по срочным договорам в крупных проектах. Порой исследовательская деятельность практикуется ими вообще бесплатно в качестве хобби. В последнем случае речь идет о дисциплинах, не требующих дорогого лабораторного оборудования и потому не так зависимых от базового финансирования научно-образовательных центров. Наиболее яркие примеры успешности научно-технического прекариата демонстрируют основатели компаний-суперзвезд в области IT – Microsoft, Google, Telegram, интеллектуальный капитал которых растет в разы быстрее, чем в Exxon Mobil или Shell [Stehr, 2023].

Итоги

Пример прекариата позволяет дать социологическую интерпретацию «анархистской эпистемологии» Фейерабенда, которая оказывается, тем самым, не просто курьезом и провокацией, а прогнозом по поводу современной и вполне реальной «распределенной», «постнормальной» науки. Благодаря прекарию изменяется образ науки и ученого. Исследовательский труд становится в большей степени призванием, освобождаясь от внешнего принуждения и статуса «услуги». Эта свобода от научной бюрократии, от парадигмальной теории, от академических статусов и приличий несет с собой очевидные риски материальной необеспеченности и научного непризнания, и потому значительная часть прекариев представляет собой просто пострадавших от неолиберальной научной политики. Однако некоторые члены этой группы имеют шанс сравняться с истеблишментом в достижениях, известности и гонорарах. Талант, пропаганда и удача выносят их на самый верх социальной пирамиды. Тогда девиация, публичность, а порой и скандальность начинают рассматриваться как важные элементы эффективной науки, выходящей из тиши кабинета и библиотеки в социальное пространство, чтобы провоцировать технологические, экономические и мировоззренческие сдвиги. И сама наука как передовой социальный институт указывает обществу путь к творчеству и свободе.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 21–38
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 21–38
DOI: https://doi.org/10.5840/eps202461337

Epistemic coercion

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Recent developments in social epistemology have applied a radically expansive notion of harm which encompasses beliefs and kinds of scientific knowledge. The implied or explicit implication of these notions is that these harms need to be suppressed. The notion of disinformation has turned this into institutional practice. The Covid pandemic saw the development and widespread use of actual means of knowledge suppression and epistemic engineering, both within science and with respect to expert claims, within nominally free societies. Paul Feyerabend's Science in a Free Society addressed these issues by critiquing the erasure of coercion from the past history of science and the practice of ignoring the coercive elements of expertise. Here I take this seriously, and turn the problem upside down by treating coercion and resistance to coercion as inherent parts of science and the public role and place in science and in discourse generally. Regardless of one's views on these questions it is evident that the rise of digital technologies, such as social media, has created novel opportunities for control, distinctive forms of epistemic control, and a need for rethinking the possibility of resistance to the coercive powers of the new technologies. This is a preliminary formulation of some of the issues.

Keywords: politics of science, expertise, Feyerabend, coercion, agnotology, democracy

Эпистемическое принуждение

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Недавние разработки в социальной эпистемологии радикально расширяют понятие вреда, которое охватывает убеждения и научное знание. Подразумеваемое или явное следствие этих понятий заключается в том, что этот вред необходимо подавлять. Понятие дезинформации превратило это в институциональную практику. Пандемия COVID-19 привела к широкому использованию средств подавления знаний как внутри науки, так и в отношении экспертных утверждений в номинально свободных обществах. Пол Фейерабенд в работе «Наука в свободном обществе» критикует исключение принуждения из истории науки и игнорирование его в экспертном знании. Учитывая эту точку зрения, я рассматриваю принуждение и сопротивление принуждению как неотъемлемые части науки и дискурса в целом. Независимо от взглядов на эти вещи, очевидно, что рост цифровых технологий, таких как социальные сети, создал новые возможности и особые формы эпистемического контроля, что приводит к необходимости переосмыслить возможность сопротивления принудительным силам новых технологий. В статье предлагается предварительная формулировка некоторых вопросов.

Ключевые слова: политика науки, экспертиза, Фейерабенд, принуждение, агнотология, демократия

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> Domination will rest upon some mixture of "force," in the narrow sense of a threat of violence, with "psychological technique," "propaganda," or, in plainer language, deception, fraud, "humbug." In this connection, the modem developments of technology in the field of social communication and of the "science" (a quasi-natural science) of psychology, have together created a new basis for tyranny on the part of a group which once gets in a position to monopolize and control the press, radio, etc. Under these conditions a consensus may be consciously voluntary, and yet forced or manipulated; assent may be enthusiastic and yet not intelligent and hence not really free; men may be "made" to act in a prescribed way and also "made" to like it. The concepts of tyranny, despotism, and exploitation have received an entirely new content, and the notion of liberty, at best more or less an intellectual "surd," has become enormously more difficult still to define. [Knight, (1934) 1935, p. 344]

> The tyranny exercised unconsciously on men's minds is the only real tyranny, because it cannot be fought against. [LeBon, 1895, p. 146]

> Words such as state, republic, society, class, as well as sovereignty, constitutional state, absolutism, dictatorship, economic planning, neutral or total state, and so on are incomprehensible if one does not exactly who is to be affected, combatted, refuted, or negated by such a term. Above all the polemical character determines the use of the word political regardless of whether the adversary is designated as non-political (in the sense of harmless), or vice versa if one wants to disqualify or denounce him as political in order to portray oneself as non-political (in the sense of the purely scientific, purely moral, purely aesthetic, purely economic, or on the basis of similar purities) and therefore superior [Schmitt, (1932) 1996, pp. 31–32].

The problem of epistemic coercion is not new. Neither is the problem of politicization, or if one prefers, the problem of the inherently political character of concepts. One can see the twentieth century as a long meditation on these issues, from Marxism and the sociology of knowledge to Schmitt, Foucault, Popper, and Bourdieu and Latour, and to feminist epistemology. And one can trace their nineteenth-century origins in Nietzsche and Hegel to their successors in the Frankfurt School, and

to the attempt to restore an earlier relation of philosophy and politics in the thought of Leo Strauss. And one can go much farther back, to the attempt to impose, and the resistance to, various religious orthodoxies throughout history Interesting as this history is, it will not be my concern here.

Feyerabend's *Science in a Free Society* addressed the precursors to these issues by critiquing the erasure of coercion from the past history of science and the practice of ignoring the coercive elements of expertise [Feyerabend, 1978, pp. 73–91]. Regardless of one's views on these questions, his critique represents a recognition that the regimes of science and expertise are ineradicably political and coercive. But if regimes of science and expertise are ineradicably political and coercive, what remains is the problem of our choice of regimes, and how to accommodate them in a democratic order. We must come to a reckoning with the disillusion from the idea of the purity of science and the neutrality of expertise. We cannot simultaneously valorize "the science" as a real institutional fact and insist on "following the science," and ignore the practical meaning of the imperfect institutional processes that make it up, and the value choices that are made within science, which may diverge from the values that derive from democratic processes.

Feyerabend's point is similar, in some respects, to recent discussions of testimonial injustice, genuine consensus, implicit bias, standpoints, and interests. But there is a significant difference. These more recent discussions operate with what political philosophers call an "ideal theory" in the background. This hidden ideal theory that is rarely articulated fully, may not be able to be consistently articulated, and is problematically applied to science. But it has some standard elements: equality and universality of participants, a process of consensus akin to Habermas's ideal speech situation leading to truth, elimination of bias (especially implicit), no coercion, no role for interests, with cognitive uniformity and common collective goals as the outcome. Deviation from these elements is taken be a source of error.

The attraction of this implicit ideal theory is this: it can never conflict with truth in the final, metaphysical sense, because any deviation from final truth is explainable by the failure to fulfill one or more of its conditions. Feyerabend, one suspects, would have simply rejected this theory. For him the role of epistemic coercion in science and in society in general was intrinsic and ineliminable. The "solution" was not a new method, or new metaphysical goal, or even a new metaphysical picture, but a recognition of the inevitability and ineliminability of what I will call the ongoing struggle between the imposition of orthodoxies by epistemic coercion and the resistance to this imposition. The focus of the paper will be on identifying forms of coercion and forms of resistance.

My special concern will be with what Frank H. Knight called the "entirely new content" of the traditional problems of tyranny and

liberty. Knight was concerned with the psychological manipulation that could come from the monopolization of the press and what were then new media, such as radio. We need to be concerned with the epistemic situation of pervasive digitalization and social media. These problems have nevertheless taken on a new edge, or new edges, because of the confluence of recent events and ideas that have developed in the long run of post-truth thinking over the last forty years [Fuller, 2018] and the new concern with, and technological response to, "disinformation."

The Covid pandemic saw the development and widespread use of actual means of knowledge suppression and epistemic engineering, both within science and with respect to expert claims, within nominally free societies. This comes closer to Knight's concerns, which will also be mine in what follows. What is the practical epistemic significance of new technologies, in which respects are they coercive, and to what extent are they legitimate? The rationale for the use of these means was that malinformation, misinformation, and disinformation were sufficiently pervasive in the digital world that they produced harms that justified not merely correction or disagreement but intervention to alter the cognitive climate. The reasoning produced a novel concept, "cognitive security," as well as a plethora of new jargon terms, many of which were designed to conceal the partisan nature of the technical interventions under such bland terms as "curation" and treating interventions as forms of cybersecurity.

New revelations about the role of governments and drug companies in these interventions, and their extent, occur almost daily. And in each case they show that the interventions cross whatever line still exists between partisanship and scholarship, fact and value, and claims warranted by sufficient evidence as distinct from plausible assumptions that might warrant policy preferences, and any line between coercion and persuasion. And under Covid, in medicine, we have seen unambiguously direct coercion: taking the licenses of doctors for failing to abide by problematic guidelines, or censorship based on definitions of misinformation which were themselves based on policy agendas with little evidence behind them. What is especially important in the presence of novel technologies of persuasion is the question of whether these are novel instruments of epistemic control or coercion, and whether they require new forms of control, and new forms of resistance, in order to serve the purposes we expect discourse, either in science or the public sphere, to achieve.

Is Epistemic Coercion Possible?

We can begin with some basic concepts, and muddles. Affirmations of explicit beliefs, such as professions of faith, can be coerced. Repeated affirmations doubtless have some psychological effect that approximates

epistemic coercion: they are an almost universal part of the technology of religious observance, and typically mimic the form of ordinary commitments and promises. These also, however, can be sincere or insincere, formulaic or a matter of conviction and true understanding. It is nevertheless a fair question as to whether belief in this sense can be coerced: Galileo resisted.

Tacit knowledge, prejudice, and implicit belief, and *implizites Wissen*, work in a different way. Implicit knowledge is acquired (and can plausibly be called knowledge) because it is produced through some process of learning or recognition. To ride a bicycle, to take the standard example, one must learn to do so, but one can't articulate this knowledge: we know more than we can say, in the classic phrase. This kind of knowledge can be manifested not only in skilled performances, but in gut feelings [Gigerenzer, 2007], an unarticulated practical intuitive sense, local heuristics, and biases.

The distinction is important in relation to power, because tacit knowledge *can* be induced, for example, by repeated experiences that are manipulated or forced. Indeed, in the specific case of training in science there is typically embodied experience that is structured to produce the relevant habits, which may also include cognitive or perceptual biases and tacit strategies for addressing and defining situations. Similarly for learning to "think like a lawyer." These are cases in which one voluntarily enters into a subordinate power relation in order to acquire the knowledge or learn the skill, but the skill is personal. But the relation to power is not intrinsic. One acquires analogous forms of tacit knowledge in "the wild," without explicit goals or subordination. But this takes us back to explicit belief. Explicit belief conforms more or less to the notion of knowledge as justified true belief: justification is something that can be done only for something explicit. But justification needs to end somewhere. The "somewhere" is, however one wishes to dress it up, a matter of some kind of experience or set of experiences that one takes to warrant the justificatory move.

Power also comes in two basic forms: commands which are enforceable and hegemonic power which takes the form of pervasive conditions of constraint that are unconsciously internalized as normal and then serve as self-imposed limits on thought and behavior that are not even recognized as such. This distinction intersects with the problem of coercion in a complex way. The term liberation, used as a goal of thought, is addressed to this kind of constraint: liberation from what used to called false consciousness, but without the baggage of the Hegelian language of consciousness. The term coercion is normally used in relation to command and enforcement. But in both cases these distinctions are, as the Knight quotation suggests, meaningful only at the margins. There is an element of power in persuasion, and of persuasion in power.

The tacit and the explicit are similarly intertwined. Normally learning to ride a bicycle is accompanied by advice or commands, so it is not

purely tacit. The explicit is interwoven with the tacit. Similarly for power: command normally relies on the tacit and habitual acquiescence of the person commanded. Hegemonic power has outward and explicit forms and components but mostly operates tacitly. And we can find examples of explicitly coerced personal experiences that generate largely inarticulable knowledge: a paradigm case would be Eisenhower's decision at the end of the Second World War to force Germans to watch films of the concentration camps by making it a condition of getting stamps to obtain food.

Power and the Dual Basis of Testimony

A basic distinction derived from social epistemology can be understood in terms of its paradigmatic concept of testimony, which in turn applies to expertise. Most of our explicit knowledge comes from others. We judge what we are told by a combination of two variables: our assessment of their trustworthiness (and motives) and our assessment of their competence to speak and their access to the subject. These are not separable, in the sense that we cannot ignore either in judging their testimony. Terms like disinformation, malinformation, disinformation about supposed disinformation, involve both elements of this dual judgement: the motives of the source and the validity of the information as determined by the joint facts of competence and honesty.

In the cases of science and journalism, for example, as well as in ordinary political discussion, we deal with this dual problem in complex and stylized forms. Judgements about the credibility of the expert are ubiquitous in science and grounded in institutional practices: past success, together with various kinds of endorsement, assures the speaker of trust [Turner, 2002]. The Matthew effect [Merton, 1968], which can be understood epistemically as a form of reliabilism in which the past successes of the speaker, the *mana* of the positions the speaker has ascended to, and the status of the journals published in and grants received, produces hierarchies of credibility and worthiness of attention which "cascade" [Sunstein and Kuran, 1999]. Needless to say, these hierarchies are intertwined with power as well.

Exclusion and inclusion, together with favoritism for preferred persons or groups, are indirectly relevant to epistemic coercion without themselves being direct forms of coercion. Nevertheless, they may be highly significant, and their significance concealed because the knowledge of the excluded persons may be largely tacit, consisting of experiences and practical knowledge that an exclusive group may lack access to. Groups, of associations, have purposes: for Polanyi the purpose of science was discovery, so his concern was to calibrate the inclusions and

exclusions for effectiveness. Excluding unreasonable objections and incompetent persons may be a requirement of progress. Peer review may be an appropriate instrument of coercion through silencing in closed forums in these cases. But there may be many other goals for different associations, and there are epistemic implications for the knowledge sharing and developing processes that are part of the work of these associations. The issue in these cases is not whether exclusion or inclusion as such is a form of coercion: it is. And it has epistemic consequences. For our purposes, then, these are forms of epistemic coercion.

Means of Coercion

With these distinctions in mind, what can be said about the means of coercion or quasi-coercion themselves? The mechanisms of power in science are familiar: they include exclusion, article rejection, failure to endorse, to fund, to employ, to allocate scarce resources to, failure to attend to, and so forth. There are also many rewards for cognitive conformity and conforming to standards of achievement. All of these are forms of censorship, in the sense that they are, like overt censorship, means of controlling and manipulating the cognitive environment. They have, and are expected to have, an impact on beliefs, through controlling the inputs that are unconsciously processed in the course of tacit learning, and through controlling what scientists are aware of. Censorship of criticism, and self-censorship out of fear of the consequences of failing to conform, the individual dependent on the authority of the controller of the cognitive environment [Clark et al., 2023].

There are also many features of the information distribution system that occur "naturally" or though non-coercive processes that facilitate particular results. These, however, are not coercion-free, because the production and distribution of information involves systems which are coercive. The science granting system is a good example of this: what appears as "science" is the result of a complex series of coercive decisions, such as the decision to fund, which have an indirect but nevertheless powerful effect on outcomes. Scientists are well-aware of who they are dependent on, and the risks of non-conformity. The level of fear is evident in the efforts of scientists to censor their own colleagues for taking positions that the government opposes, out of fear for their own grants. Similarly, the status system of science has a pervasive influence on the choices scientists make, which are another indirect form of coercion. This system itself has biases and other flaws that bear on outcomes. These considerations point to larger questions that cannot be taken up here, but should be acknowledged.

The focus of overt coercion in science, and as we will see elsewhere, is typically transmission rather than the minds of the people being

coerced. Changing minds is difficult. Silencing and excluding is not. The easiest point of coercive entry into the epistemic environment is at the moment of transmission. Preventing publication, delegitimating the sources, threatening the speakers, are all common means of exercising this kind of coercion. They were lavishly employed during the Covid pandemic. But the effect is not merely on transmission. Intersubjective validation is a large part of coming to accept an idea. Seeing what others attend to, take seriously, accept, and affirm is essential to this process. Censorship and exclusion serve to control this process. Changing minds is thus not necessary for suppressing ideas: creating the appearance of consensus is itself epistemically coercive. It creates an epistemic atmosphere which misrepresents what people actually are thinking. If all the data one has on what others are thinking is what they say, it is a false picture. It normalizes what is only normal as expression rather than thinking.

Epistemic coercion is of course characteristic of science in other ways, which we have already alluded to. They are familiar from Kuhn: the initiation into a paradigm requires blind acceptance of a great deal, often in the form of rote learning and memorization, in order to master the intricacies of a scientific discipline. And to a certain extent this is true of education in general. The neophyte scientist lacks the relevant experience and background to understand, much less criticize, what is being learned. Mastery comes slowly, unlike the mere receipt of information. Similarly for the schoolchild. In both cases this is because of the intertwining of the tacit and the explicit: merely repeating the formulas is not enough either in science or education generally to enable one to think and act using them.

These are cases of conscious, intended coercion. As with the routines of religious affirmation, the aim is to produce a homogeneity of response. They are forms of discipline. But most knowledge does not come from these processes. It is acquired through experience, social interaction, observation, and trial and error in the course of trying to accomplish goals. So it may seem that this "wild" cognition is free from coercion. This is precisely what Knight, writing with a concern for the effects of new technologies, new means of propaganda, and new monopolies of media, challenges. If there are analogues to coercion here, they will not take exactly the same form as those found in science. But what forms do they take?

Three Types of Coercion

We can begin with a rough typology, subject to various provisos. One key proviso is this: the means in question are closely linked to technology. It is not an accident that the printed book was originally, in the west,

subject to a great deal of anxiety and fear on the part of the rulers, and subject to licensing, censorship, and control, which it eventually evaded. The emergence of social media, the internet, and digital environments and tools generally have produced similar anxieties and means of suppression. A great deal of attention has been paid to the algorithms used to control social media, and these do serve as a paradigm of the new form of the problem of epistemic coercion. And they do resemble, loosely, the kinds of controls used in science: like them, they are anonymous and are treated as unrelated to the exercise of power or with self-serving motivations. The justifications for them are typically related to the harm principle or the idea of the common good, or to the good of the person whose knowledge, or more broadly their mental processes, is being controlled. A sufficiently broad typology would include these means, and take up the questions of power and legitimacy only after the means themselves are understood.

We can distinguish three basic forms of epistemic coercion:

Information deprivation: the model for this is censorship, but "curating," particularly through algorithm-based blocking of postings or other kinds of content is a variant form of suppression. The practices of article rejection in journals through peer review and other forms of exclusion from media count as well. The practice of administrative secrecy, or other forms of non-transparency, also count as information deprivation.

Normalizing and stigmatizing: these are methods of intervening to create a climate of opinion, or a sense of what the consensus is, by providing greater access to means of communicating information or opinion to particular viewpoints. Simply by flooding the public sphere or the media space with similar opinions or claims suffices to create the impression that the claims are normal, and counter-claims are suspect in some sense. The negative version of this is to de-normalize claims by making it appear that they are the views of a small and perhaps problematic – stigmatized – group. The goal is to make the preferred opinion the default and to raise the cognitive cost of challenging it by making it appear normal, standard, what everyone thinks, and so forth.

Normalization is a "nudge" phenomenon, in the sense that it lets the recipient of the information appear to choose on their own. We are, in a sense, nudged into more convenient ways of thinking and doing by our environment and its affordances, and this is characteristic of everyday rationality [Giegernzer, 2015]. Paternalistic libertarianism, in contrast, depends on the assertion that people are largely irrational and need to be given designed experiences that lead them to act or think in the correct way without the assertion of authority.

Legitimating and delegitimating: Because information is difficult to completely suppress, a common strategy is to delegitimate the sources and character of the information to be suppressed. The term "conspiracy theory" is, for example, used to marginalize ideas and information that

cannot be disproved, or is in fact true, but which is threatening to the suppressing agencies.

Legitimation is a more direct assertion by a person or institution that a certain set of views is correct or incorrect, based on the supposed special epistemic powers or access of the person or institution. Thus, the community or institution of science, experts, public health authorities, legal authorities, and so forth, assert special powers to tell others what is correct, rational, or epistemically adequate. These assertions may be used to justify censorship, secrecy, and other kinds of information deprivation, for example on the ground that others cannot be expected to understand the activity being concealed. But they are also the basis of paternalistic libertarianism, whose paternalism is based on supposed cognitive authority or superiority. The extreme form of this is the persecution of heretics.

There are however, variants of these basic types that deserve special mention:

Gaslighting: this is a form of "exclusion by ignoring" in contexts where discussion and exchange are expected, and are the basis of the legitimacy of the process of consensus building that is itself meant to have transformative effects on the beliefs of participants.

Compelled Speech: diversity statements, oaths, formulaic speech are forms of normalization, but they are also a behavioral technology designed to produce changes in thinking, in the subject's mental processing, through involuntary adaptation, and especially the kind of ritualized speech which produces some sort of commitment to the compelled statements or language through repetition and the reduction in cognitive dissonance that comes with believing what one is saying.

Deprogramming: this is a method of using social pressure to break down belief systems that are deemed to be dangerous and unworthy by isolating the person from social support and compelling overt agreement to the deprogrammer's ideology. It depends on information deprivation, particularly the intersubjective validation one might get for the belief system that is being expunged.

Pollution: This is a term for the common idea that the correct message is cognitively overwhelmed by the need to deal with too much information that is difficult to assess or assimilate. It is a way of producing the result of information deprivation by the alternative means of attention derivation or scattering, and of raising the cognitive and time costs of assessing information.

Doubtless there are more forms: these are merely indicative. But they also indicate the normalcy and ubiquity of epistemic coercion. But one might ask why, if it is ubiquitous, it's effects are not more apparent? What is apparent is the phenomenon of group-think, and the existence of climates of opinion. And these are typically bound up with the kinds of coercion listed here. But at the same time there are people who evade this coercion. They also have means – of resistance.

Means of Resistance

Protective self-censorship, evasion of issues, and conformism are the normal responses to a coercive environment. Resistance to coercive epistemic regimes is nevertheless also possible. Not surprisingly, the familiar means are at least loosely associated with liberalism as a political tradition, and are also partly the result of the origins of liberalism in the problem of extrication from the epistemically coercive regimes of religion. Schmitt claimed that the ideas of the state and of modern politics were concealed theological concepts [Schmitt, 1985, p. 36]. The same can be said for means of epistemic coercion: most of them are modernized forms of ecclesiastical power; most of the forms of resistance have antecedents in resistance to religious dogmatism.

We can distinguish a number of forms of resistance: intellectual, procedural, and, for want of a better term, social or associational. In addition, and related to each of them, is the ground of resistance in the tacit, a topic to be explained further. The classic response to the problems that arise as a result of free speech, the problems that coercive regulation is a response to, is more free speech. The thought is that more discussion would serve to clarify what was obscure, and leave decision-making to normal democratic processes: "more speech, not enforced silence," as Justice Brandeis famously wrote [Whitney v. California, 1927]. Some versions of this thought believe it would lead to consensus or truth. Max Weber characteristically dismissed this with the comment that he did not accept this metaphysics. But no metaphysics is needed to prefer open discussion. The same considerations apply: a practice that cannot be grounded metaphysically may still be superior to alternatives. Though there are certainly arguments for such things as epistocracy, elite rule, the right to competent government (a right which apparently does not include deciding whether the rulers are competent**)**, and so forth, which substitute simple state coercion for epistemic coercion.

A short list of forms and tactics of resistance might include the following:

Purification or neutralization: The epigraph quotation of Schmitt points directly to this intellectual family. Neutralization is de-politicization. Politicization is de-neutralization. It is an attempt to reinterpret all concepts as means of oppressing or combatting some group or category. The idea that all thought is ideological, that all thought is standpoint dependent, and that there is no truth other than the truth of the validity of the standpoint – classically, in Marx, the standpoint of the proletariat as the final victor in the history of class struggle.

The ideas of pure science, theory-free observation, value-free science and the like have all fallen into disrepute, or out of fashion, but it is worth revisiting them in the context of coercion. The flaws in these ideas are

largely a consequence of attempts to ground them philosophically or metaphysically: to establish an ontological distinction between facts and values, for example. The same goes for verificationism as a theory of meaning, falsifiability as a criterion demarcating science, and so forth. But, as a strategy for distinguishing substantially more compelling from substantially less compelling considerations they are commonplace. In the courts, for example, there are rules for the admission of evidence, a distinction between matters of fact and matters of law, and special roles for the people who make judgements on each. Moreover, they are useful, as a first cut in thinking for oneself, resisting what one is being told to believe.

The point about these procedures is that they establish something that is neutral between conflicting sides. This is especially important in relation to expertise: expert judgements on policy often intentionally or unintentionally conflate what is at the core – the evidence at the base of the "science" we are exhorted to "follow," which admirers of science respect – and the policy preferences of the scientist as expert which are masquerading as science. It is these preferences which are particularly likely to be the basis of attempt to suppress other viewpoints: unpersuasiveness requires supplementation by coercion.

Distinctions such as fact-value or theory-observation may be contested on the margins, and in exotic cases, prone to occasional error, and so forth, but are practical guides to assessing fallible claims. In legal contexts, there may be issues of interpretation. But these too are helped by identifying the core element common to multiple interpretations. As such, they are means of challenging coercive epistemic measures. If the government attempts to suppress criticism, for example, the critic can challenge the factual basis of the attempt and the government's own claims. By basing the challenge on purified grounds, the challenger forces the government to appeal to what is available using methods that are also available, and to reveal the methods they employed. This allows the challenger to distinguish concealed value preferences, ideologies, and motives that are not part of the purified and thus neutralized epistemic content. But it also allows for the construction of alternative interpretations.

These are methods of intellectual resistance that can also be applied to cultural differences and claims of bias: they remove the non-neutral content. It is always an open question as to what content remains. But there are also field-specific distinctions to work with to distinguish what is essentially contested from what is not. Hans Kelsen, reasoning that the law was a coercive system, settled on the idea that the actual legal content of the law was the stuff for which there were sanctions rather than, for example, the vague purposes that were sometimes written into the law but lacked specific mechanisms of enforcement. Analogous reasoning works in fields like medicine and public health: what is properly medical – what physicians can actually do effectively using established methods – is narrower than the opinions of doctors about what is healthy,

and what can be produced in the way of public health by methods like sanitation is not the same as the opinions of a health policy maker on how people ought to live. Narrowing the subject to that which depends entirely on its specific knowledge base and the practical powers of the practitioner serves to neutralize and depoliticize. Enacting or applying these field specific distinctions in practice is a different matter. They can themselves be controversial. But if there is open discussion by experts, and a public way to assess outcomes, there is at least an opportunity to assess their arguments. But for the same reasons there is an incentive to prevent public discussion and assessment.

Transparency: administrative secrecy and obscurity is a traditional form of epistemic control. Secrecy prevents the ruled from participating in their own governance. The resistance to this kind of exclusion takes the form of, on the part of participants in the state, leaking information, which is normally done for motives that are part of internal bureaucratic struggles. Those excluded from power, in contrast, demand and enforce transparency. In the case of the methods of epistemic control discussed earlier, particularly suppression of information and the creation of an epistemic environment in the digital world through "curation," a hidden bureaucracy has developed under the guise of cybersecurity which purports to combat mis-, dis-, and mal-information, but which must be kept secret for the simple reason that to be accountable it would need to reveal what it is suppressing, which would defeat the purpose of suppression.

Information Tribalism: this is a phrase for the result of responding to information overload by limiting attention to information from one's own groups, which permits intersubjective validation from the limited group. It is not a form of coercion, as it is voluntary. It is a response to both "pollution" and "curation," which is epistemically coercive, in the sense that operates not by open persuasion but by concealed means. But it is a kind of self-curation, in which the user adopts an information community or strategy that resists the pollution and curation imposed on the user who does not choose a special community. Tribalism cuts both ways, however.

We are most vulnerable collectively when the collectivity is homogenous: when our sources of intersubjective validation have the same experiences and backgrounds are the same. This provides some advantages: ease in mutual understanding and the ability to build on an understanding that is not shared with others. But the price is high. What should be challenged and resisted is taken for granted. And we are vulnerable to epistemic coercion and the manipulation of our cognitive environment because of this.

Alternative narratives: Tribalism is an aide to the development and intersubjective validation of alternative narratives, which may include the sorts of narratives delegitimated as conspiracy theories. Resistance to "North American philosophy's submersion in a culture of tacit whiteness

and heteropatriarchy" [Kim, 2023], for example, involves constructing an alternative narrative which displaces the male dominated history of the discipline, and constructing a community of dialogue within which this new narrative can be assessed and creatively extended.

Diversity: One of the methods promoted by feminist epistemologies is designed to correct the kinds of bias that result from the selective inclusion of persons from dominant groups and exclusion of others: biases of social selection that result in intersubjective validation from a cognitively limited group of validators. In one sense, it is an alternative to tribalism, and a way of dissolving the tribalism of the dominant group. In another, however, it represents the inclusion of "standpoints" that are themselves the developed result of information tribalism.

More free speech: The traditional political solution to epistemic coercion, which intrinsically involves limitations on knowledge, is more knowledge or information, in the form of free speech. The objection to this solution is that the information contained in the speech is not knowledge: that allowing anything to be said is to allow false or unacceptable things to be said, and there is nothing to assure that there is a tropism toward truth as a result of free speech. Controlling speech, however, is a grant of epistemic power to the controller, with consequences to be taken up in the next section, on legitimate forms of epistemic coercion.

Disorganized Skepticism: Robert Merton included "organized skepticism" among the four norms of science he described in a famous article, "The Normative Structure of Science" [Merton, 1973]. By this he meant skepticism within the limits of the disciplining structures of science. But fundamental to the resistance to epistemic coercion is a different sort of skepticism that may come to be articulated within the limits of science, but which originates in a more fundamental and tacit place. Epistemic coercion normally takes the form of imposing something general: it is, like Church dogma, for everyone, and is homogenous. Tacit knowledge, in contrast, is, as Michael Polanyi titled his magnum opus, *Personal Knowledge* [Polanyi, 1962], and thus heterogenous. It resembles conviction, in the sense that it is similar to an expressed, explicit, personal conviction or profession of faith, but is instead a fundamental given of the person's experience. Once one knows how to ride a bicycle, one cannot suspend that skill in the way one can imagine suspending an explicit belief. Tacit knowledge is subject to revision, expansion, and improvement, but not skepticism. It is nevertheless the basis of skepticism, in the sense that it can conflict with something one is told, and encouraged to believe.

This is not a comprehensive list, but it is a start. And the means of resistance, it is apparent, are kin to the means of coercion. More generally, the differences between means of resistance and means of coercion are differences of position: the coercer is normally in power, or appeals to conventions and practices that are also supported by means of coercion.

The Tacit Ground of Resistance

Liberalism has a traditional bias against, not to say horror of, coercion. As Hayek puts it, "Coercion is evil precisely because it thus eliminates an individual as a thinking and valuing person and makes him a bare tool in the achievement of the ends of another" [Hayek, 1960, p. 21]. This places epistemic autonomy, the individual as thinking and valuing, as a central normative commitment. But liberalism also tolerates coercion, in the form of the coercive system of the law, as a necessity. And in practice, liberalism tolerates epistemic coercion, in the form of mandatory education, but attempts to make it neutral. But it rejects the idea of real epistemic authority: the individual thinker is her own final "authority."

Other traditions deny or subordinate this revulsion against coercion and insistence on epistemic autonomy, in favor of the common good, the good of the individual, or some other goal. For them, epistemic autonomy is an obstacle to be removed in the pursuit of these other goals. Correcting people's way of thinking is for them the relevant "necessity." Epistemic autonomy is for them a fiction: people are too weak, stupid, easily misled, and epistemically dependent on the wrong sources to exercise autonomy [Gigerenzer, 2015]. But the illusion of autonomy may be a useful tool, if it makes them feel ownership of the correct way of thinking as their choice, for which they are responsible.

Neither of these conceptions is quite satisfactory, and none of them fit the pattern of coercion and resistance outlined here: coercion falls on the clever as well as the stupid, and epistemic autonomy is a myth. But the examples of resistance point to a different approach, closer to Knight's observation. Epistemic coercion is not only possible, but is, in a sense, ubiquitous. Persuasion involves selection and thus withholding or suppressing – at least not revealing – everything that might be relevant. But we are equipped, for example through our gut feelings and other elements of our tacit knowledge to resist this kind of coercion, at least by having a sense that the story is incomplete or biased. This is the epistemic situation that needs to be captured.

Tacit knowledge or responses are involuntary: the unease one might feel with a claim, or with a speaker, are the potential basis of explicit objections. Similarly, the images of the concentration camps that were imposed on Germans in exchange for food rations might be rationalized away, but could not be erased. And although one's tacit acquisitions may be flawed because they are based on experiences that do not generalize, that are the product of, so to speak, sampling error, they are nevertheless learned. "Biases" may be a compound of neuro-based predispositions and learned inputs [Yu, 2022], and of social sources, but they too have an element of learning, and feedback, in addition to mere exposure.

The heterogenous nature of this kind of mental content makes it resistant to coercion intended to produce homogenous content. Whatever is assimilated is a compound of the homogenous content and the pre-existing tacit knowledge, and consequently responses will vary. Even the most comprehensive manipulation of the cognitive environment will be subject to these limitations, Persuasion itself will depend on the tacit knowledge of the recipient, knowledge which will also be heterogenous and resistant. Perhaps more important, the individual person's tacit endowment bears on the credibility of sources: in the case of the overt coercer, who has an identity and whose personal credibility can be assessed, the coercer is handicapped or benefitted by the recipient's prior experiences with the coercer.

In the more general cases of coercion listed above, there are responses – the forms of resistance in the next section. These are, like the methods of coercion themselves, imperfect. But they are more than rote skepticism. They are based on something substantial, such as the tacit knowledge that the resisters base their alternatives on, or the intersubjective validation of a group with shared experiences. And we can see both the coercion and the responses are part of the ongoing struggle to establish knowledge for oneself and others in a continuously contested epistemic environment. These are relatively familiar forms, both of coercion and resistance. And in each of these cases we have a sense of being coerced and a sense of resistance. We have a grasp, however imperfect, of something being ignored, or hidden. We have gut feelings about the credibility or motives of the coercers. And we have a degree of freedom in choosing how to respond.

The Knightian question is this: how do these considerations apply in the presence of new technologies of coercion? What are we epistemically vulnerable to that we were not vulnerable to with the technologies of the past? In the case of curation – the manipulation of the cognitive environment – we get the illusion of freedom, within a cognitive environment that is controlled in ways that are hidden from us. And this is the new form of technology that is both the most opaque and difficult to resist: we are coerced unobtrusively in the course of doing something else, such as browsing social media or searching for information where we are unaware of what is being withheld, promoted, or presented in a context designed to make it more plausible. The technology serves to normalize, to suppress, and to familiarize. Do we have commensurate means of resistance? Or are there blind spots in our defenses?

Jonathan Haidt has been developing the evidence that social media through cell phones especially affects the mental health of teen-age girls [Twenge et al., 2022]. A reasonable interpretation of these results is that teen-age girls lack the experiences that lead to the tacit endowments that enable resistance. Boys may have a greater variety of personal experiences – with sports, for example – that mediate their experience

of the social media environment and give them a better sense of life outside this cognitive environment. The variables may be hard to quantify, but the effects of social media are so large for the population of teen-age girls that some such explanation is plausible.

We are most vulnerable where we have little tacit background that enables us to resist. And the hidden character of curation creates a novel vulnerability. The manipulator of the cognitive environment – of what is displayed on social media, for example – is unknown and unseen, and there is little tacit experience to guide our response to it. We can assess the credibility of experts, politicians, and other sources of information. We have gut feelings about them, and a tacit sense of the realities they are describing. These are all fallible, but they are also learned.

When we think of coercion generally, we think also of the power to resist, and of vulnerability to coercion. Epistemic coercion, in one form or another, mild or extreme, is ubiquitous, as Feyerabend understood from the history of science. So is resistance. But where there is authority, and epistemic privilege, such as the power to exclude, there is the risk of abuse and vulnerability to error, "biases" that are implicit and explicit; and where there is resistance there is also vulnerability. There are justifications for power, and there are reasons to be suspicious of it.

This is at least a clue to how we should think of the distinctive coercive power of the new technology of digital world. The concept of disinformation and the idea that disinformation should be suppressed is itself a kind of acknowledgement of our special epistemic vulnerability in the new digital world. But it is also a novel form of coercion, based on a novel form of authority over what is treated as true. Not only does it have the potential for abuse, it has already been abused. It is a new inquisition and response to heresy with new tools of coercion, which is neither transparent nor validated from outside. To understand our new epistemic situation is to understand both sides of this relationship, and we are far from understanding either.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 39–49
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 39–49
DOI: https://doi.org/10.5840/eps202461338

WHOSE AUTHORITY, WHOSE AUTONOMY?

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The presentation of the tension between the autonomy and authority of the scientific community should be recalibrated as the tension between the authority of the scientific community and the autonomy of individuals within a democratic state. Limiting the authority of the scientific community necessarily limits its autonomy (and in this sense the "tension" dissipates). Whatever constraints are imposed on the scientific community by the state, they do not by themselves sanction individual disregard for state policies. The tension, then, is between the political authority of policy makers and the autonomy claimed by individuals. There should be no indiscriminate license for following one's "gut feelings" when a state adheres to (scientific) expert recommendations that protect and save individual lives.

Keywords: authority, autonomy, scientific community, anarchism, ideology, individuality, responsibility

ЧЕЙ АВТОРИТЕТ, ЧЬЯ АВТОНОМИЯ?

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Представление о напряжении между автономией и авторитетом научного сообщества должно быть переосмыслено как напряжение между авторитетом научного сообщества и автономией индивидов в демократическом государстве. Ограничение власти научного сообщества неизбежно ограничивает его автономию (и в этом смысле «напряжение» рассеивается). Какие бы ограничения ни накладывало государство на научное сообщество, они сами по себе не санкционируют индивидуальное игнорирование государственной политики. Таким образом, противоречие возникает между властью политиков и автономией, на которую претендуют индивиды. Когда государство придерживается рекомендаций (научных) экспертов, которые защищают и спасают жизни людей, не должно быть места неограниченному праву следовать чьему-либо «внутреннему чутью».

Ключевые слова: власть, автономия, научное сообщество, анархизм, идеология, индивидуальность, ответственность

Exegetical Introduction

In his essay "Epistemic Coercion," Stephen Turner laments a variety of epistemic coercion technologies and recommends a variety of methods of resistance. The occasion for examining the boundary conditions of so-called epistemic coercion, according to him, is "the Covid pandemic [which] saw the development and widespread use of actual means of knowledge suppression and epistemic engineering, both within science and with respect to expert claims, within nominally free societies." His

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argument seems to conflate "epistemic engineering," which seems to stand for policy directives related to a global epidemic that claimed more than three million deaths, and "knowledge suppression," which appears to stand more broadly for activities regularly undertaken by the scientific community and the "expert claims" it espouses. The conflation of the epistemic purview of the scientific community writ large with the epistemic use (and potential abuse) of political leaders obscures the different registers where knowledge claims are tested, critically examined, and provisionally accepted. The call for "a reckoning with the disillusion from the idea of the purity of science and the neutrality of expertise," as Turner insists, is neither new nor worthy of more urgency now (after the global epidemic) than it has in the long history of technoscience. Having encountered the problematic political and military framing and funding of Big Science (the "Manhattan Project" is only the most notorious of many other large government-sponsored projects), and having witnessed the output of the military-university-industrial complex, I doubt anyone interested in the activities of the scientific community, perhaps better understood as the scientific enterprise, is still holding on to any notion of "the purity of science and the neutrality of expertise." In fact, court cases dealing with the effects of tobacco consumption and asbestos exposure have provided ample evidence that scientific expertise is indeed for sale to the highest bidder.

Given the mantel of "liberalism" against which Turner develops his warnings of epistemic coercion and his commitment to individual "epistemic autonomy," it is reasonable to conclude, as he does, that we are all facing a "special epistemic vulnerability in the new digital world." But does this imply that each individual is indeed capable of "assess[ing] the credibility of experts, politicians, and other sources of information" because of our "gut feelings about them, and a tacit sense of the realities they are describing"? It is one thing to call for some "epistemic resistance" that demands what Robert Merton called "organized skepticism" as an initial critical stance toward any hypothesis put forward and quite another to rely on one's "gut feelings" alone. Even Paul Feyerabend, to whom Turner refers as the maverick critic of expertise and the dogmatism of the scientific method, the one provocatively suggesting that "anything goes," remained beholden to the pragmatic feedback-loop that would or would not warrant accepting one theory or practice over another (alternative Chinese medicine and practice has been his favorite example 1975). One wonders what to make of Turner's advocacy of radical epistemic individualism, the kind that has the advocates of the post-truth era (he mentions Steve Fuller in this context) claim parity among all claims regardless of the factual evidence that supports them, which presents itself often as both extremely relativistic and divorced from the minimal requirements, however flawed, of the scientific method. The political abuse of knowledge claims and the deliberate political manipulation

of the disputes among scientific experts in and of themselves offer no license for completely ignoring those minimal (methodological) requirements. When science studies critics, like Bruno Latour [Latour, 2004], recognized how their critiques were weaponized by post-truth adherents, they took responsibility for the unintended consequences of their textual analyses and reframed their work as getting "closer to the facts" rather than detaching themselves from empirical reality.

Framing his concern with epistemic coercion in the tradition of liberalism (associated for him with Hayek), Turner argues that "epistemic autonomy, the individual as thinking and valuing, [is] a central normative commitment" of liberalism. This individualized "normative commitment" is undermined from the very start by scientific expertise, theoretically and practically. He admits that "liberalism also tolerates coercion, in the form of the coercive system of the law, as a necessity," and that "in practice, liberalism tolerates epistemic coercion, in the form of mandatory education, but attempts to make it neutral." Despite these caveats, Turner insists that what is actually meant by "epistemic autonomy" is "real epistemic authority," that is, "the individual thinker is her own final 'authority'." If one's autonomy rests on one's authority – presumably, one's capacity and inclination to author one's knowledge claims and be the arbiter of others' authorship of alternative knowledge claims – no wonder Turner must partially abandon his liberal commitment and admit in unqualified terms that "epistemic autonomy is a myth." Since time and again Turner compares science to theology and scientific institutions to religious ones, is the said "myth" akin to a theological myth? And if, indeed, we must speak of epistemic autonomy in fictional terms, what does it mean both for the status or authority of epistemology and for the reverence we accord autonomy? Is there a slippage in Turner's critique between speaking about the autonomy of the scientific community with its attendant authority and the autonomy granted individuals in ignoring the authority of the scientific community? In what follows, I plan to offer provisional answers to these two questions.

The Tension Between Scientific Authority and Autonomy

Can the separation between state and church so proudly announced (even if not adhered to) by promoters of the US Constitution (Jefferson's famous "wall of separation" is invoked repeatedly) be applied to the relationship between science and the state? Would it make sense to leave the scientific community to make whatever epistemic claims it wishes, insist on its authority on all matters scientific (the way the churches do with all matters theological), without monitoring and framing its policy recommendations

in political terms for which the state is responsible? In this manner, the autonomy of citizens can be preserved even when scientific expertise is solicited by state representatives so long as the scientific authority underlying said expertise remains internal to its own community. Asking for advice does not entail a commitment to follow it. What Feyerabend saw and was alarmed by is the overbearing and outsized power the scientific community was wrongfully afforded without realizing two essential problems. The first had to do with the reliability and integrity of the scientific community itself, an issue he was concerned with because of internal power-relations, forms of Kuhnian indoctrination, biases and prejudices scientists brought to their work, and the ongoing threat of fraud and false of laboratory and observational reporting [Sassower, 2015]. The second had to do with a libertarian streak of absolute autonomy that should be granted to all members of any democratic state such that the authority of the scientific community would be controlled, contained, monitored, and regulated. The ultimate arbiters of what to make of scientific expertise should be the individuals affected by policy decisions relying on such expertise, as Turner reminds us in his essay.

Given the fact that, as Matthew Brown insists, "in practice, the role of scientific research and science advising are often *indistinguishable*," and given that, as Turner insists, there is a fundamental "ineliminability" of expert judgment insofar as the state and its members still need it to make reasonable policy decisions, and recognizing that all scientific judgments are inherently value-laden to some extent, could any suggestions of a separation between science and state be feasible? [Brown, 2021, p. 194]. According to Brown, Feyerabend, who was concerned about this question, offers four ways in which the public can and should control science, or more specifically, constrain the kind of policy advice its members give to state officials (Turner's main focus is on the Covid-19 policies in the US). In outlining these points, we should remember that they are talking about the autonomy of the scientific community and not the autonomy of the public. The first way of monitoring science has to do with evaluating scientific judgments, even if the public errs and even if the outcome (the public chooses) is worse than if scientific expertise were to be exclusively followed; the second has to do with supervision, perhaps the kind one observes in private and public funding agencies where the scientific community must explain its methodology and report on its findings (so as to be granted further funding or be cut off); the third has to do with an understanding that science, its methods and ethos, are just another ideology among the many the public encounters, and therefore should not be granted special neutral status (of so-called expressing facts alone); and the fourth has to do with a separation between science and the public [Ibid., pp. 195–200]. As Brown concludes, "Whenever science may influence or impact society, it should be monitored and evaluated by non-experts, to ensure its influence on society is beneficial and legitimate"

[Brown, 2021, p. 202]. This means that to preserve its authority the scientific community must yield some of its autonomy and be accountable to the public.

Does it make sense to have experts beholden to non-experts? Can lay people be trusted with sifting through scientific data and coming to reasonable (if not perfect) conclusions? Perhaps one way to answer these questions is to cite in this context Immanuel Kant's and John Stuart Mill's concerns with the "maturity" (critical and rational engagement) of the public – the individuals who take it upon themselves to review and choose which expert claims to accept and which to reject – individuals who must themselves be accountable to their own transparent procedures of adjudicating so that, as we have seen in the post-truth age, individuals are not granted the right to "their facts" or "their rights" to do whatever they want regardless of how their conduct impacts others. This is a subtle point that is often overlooked in abstract discourse of rights: outside of a starting point that grants one some basic rights (from free speech and thought to conduct that doesn't affect others), there must be some *standards of rationality and evidence* that guide decision-making processes of a community of individuals who are entitled to their respective rights but must live together. It is puzzling how quickly individuals move from having *some* basic rights to claiming to have *all* the rights regardless of the rights of others or in complete ignorance of basic facts that must be shared and agreed upon.

So, how can one justify the fact that scientific expertise is essential for societal health with a sense of *respect* rather than *resentment*? If we cannot "eliminate" the need for expertise, how can we tame its powerful impact? Brown offers us two sources for such respect, one coming from Michael Polanyi's notion of "tacit knowledge" which is embedded in and continues its afterlife among the members of the scientific community. Scientists do know *more* than the rest of us (about scientific matters), and their innate understanding of certain natural phenomena go beyond the textbooks (derided by critics of Thomas Kuhn) and popular publications available to any interested non-scientist. The second comes from Bruno Latour (mentioned above in the context of getting "closer to facts" through critique so that critique is neither destructive nor dismissive of empirical facts). After quoting from Latour, Brown patiently explains that "even non-scientists who are very committed, resourceful, and mature may not be able to decide for themselves without a laboratory of their own, without becoming a scientific expert in their own right"; that is, this set of conditions (for repeatable testing and reproduction of scientific reports) is unlikely to be achieved by non-scientists under the best of circumstances and therefore undermines the seemingly reasonable proposal for non-scientists to question scientists [Ibid., p. 205]. This also means that a degree of authority ought be granted to the scientific community when its members are explicit about their various biases and

values and are forthcoming with information about how their policy recommendations rely on their experiments and studies, however tentative they may be. In fact, we should acknowledge that more often than not scientists present their scientific views in *tentative terms* with many caveats and qualifications so as to refrain from claiming certainty or absolute consensus among themselves. The unintended consequence of this display of what Feyerabend would concede is the "integrity" of scientists is a skeptical and even hostile reception by individuals who expect "science" to have *absolute* answers without qualification. Isn't 2+2=4? Don't we know for sure that water boils at 100 and freezes at 32 Fahrenheit degrees? *Mature* individuals (in Kant's and Mill's sense) should have kept up with the history of technoscience and realized that probabilities were introduced centuries ago and that qualifications or falsifications *increase* the credibility of a scientific claim rather than detract from it (by narrowing its scope). Feyerabend's insistence that scientists must not be trusted *a priori* must be accompanied with a similar insistence about the burden that should be placed *a posteriori* on non-scientists.

I have read Feyerabend's more provocative rhetoric with the same sentiment expressed by Brown that what he actually recommends is a *gradual* shift from letting scientific expertise have absolute authority over public policies and a view that grants absolute autonomy to individuals in disregarding any and all scientific advice [Sassower, 1993]. The plea for gradualism – degrees of authority and degrees of autonomy – is important to emphasize at this juncture, as it requires a collaborative stance from both science and the state (and the individuals who constitute both). As Nathaniel Laor has argued for decades, instead of claiming the absolute authority of clinicians, degrees of autonomy should be granted to mental health patients whereby they are consulted about their own treatment, that is, supervised up to a point where experts (medical clinicians) must weigh in in order to protect patients who may choose to act against their own best interests [Laor, 1984a; 1984b]. In other words, if we introduce *degrees of authority* and *degrees of autonomy* to the discussion, and if we clarify *whose autonomy* is at stake, the tension between scientific authority and autonomy (both for the community of scientists and for the individuals encountering its expert advice) may be reduced if not fully dissolved.

The Tension Between Political Authority and Personal Autonomy

Though commentators and critics of Feyerabend have cast his views in ways that cohere with their own concerns with the role and position of the scientific community in modern democracies, and though their

focus has been on the authority and autonomy of the scientific community (while conceding that scientific expertise is essential for setting public policies), it seems to me that the tension is not so much between the authority and autonomy granted to the scientific community as with its authority in relation to the autonomy of the public to endorse, apply, reject, or revise expert judgement put forth by the scientific community. It is in this light that I reject the assessment of Brown, for example, who sets a standard binary between curtailing "the authority of scientific experts," which for him is tantamount to "epistemic anarchism" and curtailing "the autonomy of scientific practice," which for him is tantamount to "strong accountability" of scientists to the public [Brown, 2021, p. 209]. It seems that curtailing the former is bound up with curtailing the latter, so that whenever the authority of the scientific community is challenged *ipso facto* so is its autonomy. This false binary explains, in my mind, only one side of the tension, namely, what to do with the scientific community. Though the provocative concept of anarchism is bandied about, it is clearly of the tame variety explained by Robert Paul Wolff (whose 1998 book Brown cites).

Epistemic anarchism means in this context the openness to multiple expert opinions rather than reliance on a single opinion rendered by the scientific community as if such singularity can ever be witnessed. For as many experts there are, and for as many data sets there are, consensus is difficult to come by, especially in scientific matters. Some studies are exclusively dependent on the collection of empirical data while others emanate from computerized simulations: can the two kinds of analysis be compared, let alone be combined? Once timelines are added to these analyses, as in the case with climate change and environmental hazards, different results are bound to be incomparable. So, if by epistemic anarchism we mean an openness to a plurality of scientific expert views (perhaps in the postmodernist sense), then the choice to be made by public officials and state-appointed policy experts may not be as difficult as it may at first seem, because the choice would have to adhere to a set criteria of applicability set by the state (for pragmatic as well as ideological reasons). Those criteria, in turn, will be explicit and transparent so that the "strong accountability" (Brown formulates) is directed not at scientific experts but at public officials, political leaders, and policy wonks. In short, individuals might be less concerned with the credibility of scientific expertise (which will be vetted by public officials and policy wonks) and more with the integrity and transparency of the decision-making processes undertaken by state officials (those who are indeed accountable to the public).

Intermingling the integrity and accountability of one set of practitioners (scientists) with another set of practitioners (scientists and non-scientists elected officials) is bound to lead to a complete failure of oversight. And intermingling epistemic and political anarchism has the danger

of both equivocation and policy-implementation failure. This is not to say that there should not be a plurality of expert voices worthy of consideration nor that transparency of both the workings of the scientific community and policy makers should not be demanded. It is, however, an insistence on the secondary role individuals play when public affairs are at stake, when, for example, a lethal epidemic hits the nation. Focusing on individual opinions and conferring authority to anyone who wishes to express them, no matter how uninformed, is folly. This is not to take away individual rights, but instead to be mindful that those individuals, whose interests and protection seem ideologically paramount to both Feyerabend and Turner, are bound to be relatively uninformed as compared to either scientists or public officials whose business it is to monitor the scientific community and solicit expert advice (according to clear criteria, as mentioned above). Guaranteeing and sanctioning individual opinions, especially when they pertain to scientific matters which affect the whole community – like an epidemic where transmission is prevalent and life threatening – is outright *irresponsible*. It is in this context that Feyerabend's own warnings about the ideological underpinnings of science should be extended to the ideological sanctity of individualism, a view that finds support not only from libertarians and some liberals, but from some anarchists as well. The guardrails of personal responsibility and a thoughtful study of the issue at hand (epidemiology, in the present case) seem absent when the mantra of individualism and individual rights is loudly proclaimed. However noxious a policy requirement might be (masking, vaccination, distancing), its credibility and efficacy rest on some basic tenets of the scientific method of testability, repeatability, and falsification and not on "gut feelings."

The Myth of Personal Autonomy

Having shifted the discussion to curtailing scientific authority to a degree (the degree will be determined on a case-by-case basis) and curtailing the autonomy of individuals to a degree (expecting informed critiques rather than "gut feelings"), the focus now should be on state institutions charged with choosing and implementing public policies. Questions of coercion and resistance might still be relevant in this political context, but their scientific or other provenance has become secondary. Within the context of a democratic nation-state, some basic social contract principle must be invoked to determine the degree to which individuals must comply with orders by the state and the degree to which the state is accountable to individual questions about the basis and validity of such orders and their applicability to each one of them. Whether one cites here the classical social contract theorists, such as Thomas Hobbes, John

Locke, Jean-Jacques Rousseau, all the way to modern ones, such as John Rawls, or critics of democracy, such as Carl Schmitt, will have little bearing on the specific questions raised by Feyerabend and Turner about the scientific community as such. But before I move to the unique position of the scientific community within the modern nation-state, perhaps a quick reminder from Feyerabend's own work might help set the stage. He writes that "Democracies *as conceived by liberals* are always embarrassed by their joint commitment to 'rationality' – and this today means mostly: science – and the freedom of thought and association. Their way out of the embarrassment is an abrogation of democratic principles where they matter most: in the domain of education" [Feyerabend, 1978, p. 135]. It's odd to contrast science and rationality with "freedom of thought and association" as if they are not playing in the same sandbox. It may be in limited cases that one imagines that rational thinking is the opposite of thinking freely (for example, when only irrational and imaginative thinking is free while rational and logical thinking is necessarily constrained or coerced). In other words, this is a false binary that smuggles as a crucial appendage the entire education system, which could be rational, free, doctrinaire, ideological, and/or whimsical, depending on who is teaching, where one is being taught, and when this takes place in one's educational trajectory.

Are there boundary conditions to democracies (as conceived by liberals and their critics) where certain freedoms or certain degrees of freedom are curtailed? As Feyerabend's teacher acknowledged in a different context, Plato's "paradox of freedom" is relatively well-known, while the less known "paradox of tolerance" remains alive and well: how free can one be in a democracy and how tolerant must one be when encountering an intolerant interlocutor [Popper, 1966, pp. 265–256]? As mentioned above, the political framework within which the scientific community operates has constraints (codified in some formulation of a social contract theory) which in and of themselves do not *inter alia* undermine the very principles of democracy. Instead, they clarify the limit of democratic principles and carve out areas and practices where compliance, regulation, and Mill's Harm Principle must be considered [Mill, 1958, p. 13]. This is true also of the scientific community, which, in contradistinction to business cartels or professional associations, has a particular history with the state apparatus, related greatly to military needs that rely on technoscientific expertise. The age of Big Science (as mentioned above) is still with us, and the warnings of President Eisenhower (1961) after World War II about the military-industrial complex resonate to this day. If it's not the Manhattan Project of decades ago, then it's satellite surveillance post the Cold War; if it's not secret operations undertaken by the military, it's an expansion of the military-industrial complex to include the university system and all the Artificial Intelligence technologies developed by private corporations as deterrence against national enemies

[Mirowski, 2011]. My point is simple: though the scientific community continues to play an outsized role in the affairs of the state – as recipient of research and development funding and as intimate partner in techno-scientific choices made by state institutions – the debates over the right of individuals to ignore epistemic claims or resist what they consider "epistemic coercion" should take place on a different register, one contextualized in political philosophy and not one that ignores the contributions of the scientific community to the welfare of the state. Lest this last comment sounds too captivated by the brilliance of scientific expertise, I should hasten to add many caveats, not the least of them about the oversight this community ought to accept not despite but because of the prominent role it plays in the state and the great resources it enjoys.

So, why are the likes of Feyerabend and Turner still worried about the autonomy of individuals once they have determined the extent to which the absolute autonomy (and authority) of individuals eclipses any reasonable argument about the political and social context within which such autonomy can be exercised? Moreover, who are these "individuals"? More precisely, what specific characteristics are associated with these abstract individuals? The Eurocentric folly of abstraction, as has been pointed out in detail by Domenico Losurdo [Losurdo, 2014] in the case of the above-mentioned Social Contract Theory, has in fact upended its universal appeal by recasting it as the Racial Contract Theory (a contract that excludes non-whites). The European enlightenments of the 18th century envisioned individuals that looked like them: white males of a certain social and economic status with private property to support them and many other privileges not observed among the less fortunate or among individuals around the world. Keeping this in mind would help narrow the discussion, however philosophical it must remain. To be clear, claims related to the autonomy of individuals focus primarily on privileged individual whose rights and their protection from coercive political agents, whether embedded in the US Constitution or in some international code of human rights, are sacred. No matter the reliance on a set of laws or the Constitution, the autonomy granted to individuals was never thought to be absolute: "No man is an island unto himself," reminds us the *Bible* (*Romans* 14:1–26). And as enlightenment principles were worked out by G.W.F. Hegel [Hegel, 1952], for example, it was clear how the individual is both *part of* a family, then a community of those participating in civil society, and eventually a more codified *co-existence* within the state. As Hegel says in the introduction to his lectures on the *Philosophy of History*, "Freedom consists in regarding that term only in its *formal*, subjective sense, abstracted from its essential objects and aims; thus a constraint put upon impulse, desire, passion – pertaining to the particular individual as such – a limitation of caprice and self-will is regarded as a fettering of Freedom." But this view of freedom, predicated on some misguided notion about the "state of nature," continues Hegel, is itself

misguided: "We should on the contrary look upon such limitation as the indispensable proviso of emancipation. Society and the State are the very conditions in which Freedom is realized" [Hegel, 1900, p. 22]. The *realization of freedom*, rather than some ideologically abstract idea of freedom, according to this view, is contingent on being exercised within a legal framework of a nation-state, where social convention, moral principles, and the rule of law guide the boundary conditions of one's freedom. Whatever the relationship of the individual to the state – assimilationist, reluctant, obedient, or resistant – *the very idea that a special refusal realm of conduct must prevail is both misguided and dangerous* (as the case has been with some extremist groups).

Promoters of liberty, as mentioned above in the case of Mill, demarcated the cases where one is completely free to act as they want (thinking, speech) and the cases where one's liberty is constrained by the effects such actions have on others. This line of thinking prompted Isaiah Berlin a century later to distinguish between positive and negative liberty: the former related to those actions one is permitted to undertake freely and the latter related to one's protection from the actions of other individuals as well as the state [Berlin, 1969]. No matter if subsumed under the umbrella concept of liberalism or not, these thinkers and many other legal scholars who draw the conceptual and practical boundary conditions of one's conduct, it is clear that the individual is never perceived to be completely alone. This matters a great deal because once recognized as a member of a community, as Social/Racial Contract Theory from Plato to Hobbes, Locke, and Rousseau reminds us, the *conceptualized individual* is in fact always already constrained by the social, political, economic, moral, and epistemological contexts wherein they exist. In this sense, then, the *ontological status of the individual is epistemologically predetermined*, leading some Africana Studies scholars to speak fluently about one's ontoepistmological status rather than separating the ontological from the epistemological, as has been the standard approach of Eurocentric metaphysics [Huuki & Pacini-Ketchabaw, 2023]. This view also explains the different perspectives (or standpoints, in the feminist sense) from which one speaks and thinks, knows and explains epistemological claims and models. Scientific experts, then, offer a privileged epistemic view of the world, but one that by definition remains partial. Instead of dismissing their view(s) offhand or setting it (them) up as having no advantage over other, non-scientific view(s), it may be more productive to ask these experts to couch their pronouncement with what may seem implicit (tacit, in Polanyi's sense) to them but unknown to non-scientists, namely, make explicit their scientific presuppositions, prejudices, and limitations. In doing so, scientists interested in policy matters may become the kind of collaborators with non-scientists envisioned by John Dewey's notion of "collective inquiry," the kind that should be the bedrock of any democracy, as Brown reminds us [Brown, 2021, p. 211].

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 51–61
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 51–61
DOI: https://doi.org/10.5840/eps202461339

Response to Turner: Is it useful and/or accurate to think of algorithmic curation as epistemic coercion?

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We argue that the concept of epistemic coercion is neither accurate nor useful for describing and thinking about the significance of the new practices of algorithmic curation, and that Foucault's concept of rarefaction is better suited for this purpose. After establishing what Turner means by epistemic coercion, we show that it differs from how the concept of coercion is typically defined and used by philosophers and sociologists, especially because Turner does not identify a threat that causes the coerced people to act under duress. We then detail our reasons for why the concept of coercion, to our minds, flattens and to some extent distorts our understanding of the practice of curation. Among these reasons are the blurry lines and interdependence between curation and self-curation, thus between "coercion" and "resistance"; the absence of a plausible "threat" that could justify conceptualizing the operation as coercion; the inescapability of curation in order to navigate the "information glut"; as well the question of whether users of social media are aware that their information environment is curated. Finally, and directly following from these reasons, we show that Foucault's concept of discursive "rarefaction" offers a lot more insight into the novelty and nature of contemporary curation practices. Indeed, we argue that viewed from this perspective, social media appears to represent a new rearrangement and ordering of discourse, the formation of an interface between "ordinary utterances" and "disciplines," between everyday talk and expert discourse. This intermediate realm, where discursive events are neither ephemeral nor preserved "in the true," depends on rarefaction-qua-curation for its existence and functioning.

Keywords: curation, algorithmic curation, discourse, Foucault, discourse analysis, rarefaction, coercion

Ответ Тернеру: полезно/корректно ли рассматривать алгоритмическое курирование как эпистемическое принуждение?

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Мы утверждаем, что концепция эпистемического принуждения не является ни точной, ни полезной для описания и осмысления значимости новых практик алгоритмического кураторства и что концепция разреженности Фуко лучше подходит для этой цели. После прояснения того, что Тернер подразумевает под эпистемическим принуждением, мы показываем, что трактовка Тернера отличается от обычного определения и использования концепции принуждения философами

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и социологами. Дело в том, что Тернер не определяет угрозу, которая заставляет людей действовать по принуждению. Далее мы подробно объясняем, почему концепция принуждения упрощает и в некоторой степени искажает наше понимание практики кураторства. Среди причин этого – размытые границы и взаимозависимость между кураторством и самокураторством, а значит, между «принуждением» и «сопротивлением»; отсутствие правдоподобной «угрозы», которая могла бы оправдать концептуализацию действия как принуждения; неизбежность кураторства для навигации в «информационном переизбытке»; вопрос о том, осознают ли пользователи социальных сетей, что их информационная среда курируется. Исходя из этих соображений, мы показываем, что концепция «разрежения» дискурса, выдвинутая Фуко, позволяет гораздо лучше понять новизну и природу современных практик кураторства. Мы показываем, что с этой точки зрения социальные медиа представляют собой новую перестройку и упорядочение дискурса; они формируют интерфейс между «обыденными высказываниями» и «дисциплинами», между повседневной речью и экспертным дискурсом. Эта промежуточная область, в которой дискурсивные события не являются ни эфемерными, ни неизменно «истинными», в своем существовании и функционировании зависит от разреженности-как-кураторства.

Ключевые слова: кураторство, алгоритмическое кураторство, дискурс, Фуко, дискурс-анализ, разреженность, принуждение

While Turner dedicates a large part of his article to science, it is evident that the impetus for formulating the concept of epistemic coercion comes from his reaction to what he calls "curation." The advent of digitalization and social media, especially as the latter is increasingly algorithmically managed, argues Turner, creates new affordances to control the cognitive environment of users. Curation, according to Turner, is a type of technical intervention that enables "unobtrusive" coercion and makes us particularly vulnerable precisely because it operates "in the course of [us] doing something else, such as browsing social media or searching for information where we are unaware of what is being withheld, promoted, or presented in a context designed to make it more plausible" [Turner, 2024, p. 36]. Put differently, algorithmic curation grafts itself onto the free and seemingly autonomous practices of the users of social media, creating the "illusion of freedom" for them [Ibid.]. Its manipulation of their attention and information environment constitutes a new form of control exercised by an "unknown and unseen" manipulator, making it especially hard to detect and resist. As a key feature of the current "epistemic situation of pervasive digitalization and social media" [Ibid., p. 24], Turner presents curation as exhibit one for the relevance and utility of the concept of epistemic coercion, and for the need to come up with a new understanding of the power that pervades the relations of information, knowledge, and discourse.

Turner deserves credit for calling attention to the role that curation plays in shaping a "new epistemic situation," and for insisting on the need to develop concepts that can illuminate its workings and effects. To our minds, however, the concept of coercion is neither accurate nor useful for this purpose. We will develop this argument as follows: first, we will show that Turner does not provide a useful working definition of coercion, and that there is textual evidence that the primary purpose of the concept is polemical. Second, we will provide a brief survey of what is typically meant by "coercion" (including an independent usage of the very same term – "epistemic coercion"), noting the points of difference from Turner's usage. Third, we will detail our reasons for why the concept of coercion flattens and to some extent distorts our understanding of the practice of curation. Among these reasons are the blurry lines and interdependence between curation and self-curation, thus between "coercion" and "resistance"; the absence of a plausible "threat" that could justify conceptualizing the operation as coercion; the inescapability of curation in order to navigate the "information glut"; as well the question of whether users of social media are aware that their information environment is curated. Finally, and directly following from these reasons, we will suggest that the concept of discursive "rarefaction," introduced by Foucault (1970) in his inaugural lecture at the College de France, as well as in *The Archeology of Knowledge* (1972), offers a lot more insight into the novelty and nature of contemporary curation practices.

What Does Turner Mean by "Epistemic Coercion"?

The word "coercion" appears 77 times in Turner's article, but search as we may, we couldn't find a definition. This is not, by itself, a fault. We do not fetishize definitions. Per Wittgensteinian "family resemblance," the meaning of a term can be clarified through a set of strategic contrasts that do not sum up to necessary and sufficient conditions. This seems to be Turner's approach. Epistemic coercion is contrasted with plain coercion that involves "commands and enforcement," with rational persuasion, and with hegemonic power [Turner, 2024, p. 25]. The upshot seems to be that by epistemic coercion Turner means "limits on thought and behavior that are not even recognized as such," and that result from the fact that certain speakers and certain contents are excluded from discourse. [Ibid.]

The difficulty, which Turner recognizes, is that *all discourse*, and certainly scientific discourse, rests on a set of exclusions. The distinction between epistemic coercion and rational persuasion, he says, is "meaningful only at the margins. There is an element of power in persuasion, and of persuasion in power." [Ibid.] If discourse was a free-for-all, it

would be a cacophony and nothing would be accomplished. He cites Polanyi to the effect that "excluding unreasonable objections and incompetent persons may be a requirement of progress," and that there is simply a need to "calibrate the inclusions and exclusions for effectiveness." [Turner, 2024, p. 27] If so, why single out particular practices – such as curation or peer review – as instances of epistemic coercion? Turner does not give a clear answer. He seems to imply that there are some instances when this coercion is "appropriate" because it serves the goals of scientific discovery, but others when it is not, because it serves some ulterior motives. [Ibid.] But he provides no way of deciding when this happens.

Most importantly, his characterization of this form of power as *epistemic* coercion seems to rest on the idea that the exclusion involved is unrecognized. If it is recognized, it might still be coercion, but no longer an epistemic one. When "pervasive conditions of constraint… are unconsciously internalized as normal and then serve as self-imposed limits on thought and behavior that are not even recognized as such" [Ibid., p. 25], then this has "epistemic consequences. For our purposes, then, these are forms of epistemic coercion." [Ibid., p. 27] This is far too vague since he doesn't tell the reader whether "unrecognized" means that it is impossible for ordinary people to recognize these limits (but somehow possible for the critical scholar), or that they are only temporarily deceived, or that they are unrecognized only as a condition of successful practice (in the same way that riding a bicycle requires backgrounding the explicit knowledge of how to ride a bicycle), or maybe it is a form of motivated misrecognition, namely actors know that their information environment is curated, but go along with the curation because they believe that it serves their interests?

In short, Turner's concept of "epistemic coercion" seems to rest on an unclarified normative criterion of the "appropriateness" of exclusion, and on an unclarified empirical question about whether and in what sense are people unaware of what is being excluded. Given these difficulties, we suspect that Schmitt's epigraph applies also to this concept. It is "incomprehensible" unless as a polemical concept directed against others who are "to be affected, combatted, refuted, or negated by such a term." [Ibid., p. 22] From this perspective, using the term "coercion" has the primary function of labeling certain practices illegitimate and incompatible with the principles of a liberal society.

What do Philosophers and Sociologists Typically Mean by "Coercion" and by "Epistemic Coercion"?

In contrast to Turner, most discussions of "coercion" in philosophy and social science link its occurrence to the idea that a certain threat is issued in order to compel behavior. This is true both for authors who seek a "precising" definition, limiting the application of the concept, and for those who, like Turner, seek to broaden its scope. It should be self-evident that if coercion depends on a threat being perceived, it cannot operate if "unrecognized."

According the *Stanford Encyclopedia of Philosophy* [Anderson, 2023], coercion is (a) distinct from mere disapproval or/and emotional manipulation, (b) exercised by an application of force or a threat of it, and (c) includes the intentional attempt of a coercer to alter actions of others. This approach establishes clear boundaries around the concept, thereby concentrating analytic attention on specific instances and contexts where coercion is most salient, such as law enforcement, governmental control, sexual and domestic abuse, etc. A related approach is Weber's [Weber, 1978, pp. 212–215] concept of domination as a form of power that operates through commands. Commands are obeyed, says Weber, for a variety of reasons, including the threat of force, ulterior motives or self-interest, as well as genuine belief that the command is legitimate. Commands are, of course, explicit and need to be recognized by the subordinate in order to have effect. Thus, most standard approaches to coercion would exclude Turner's usage and would consider the idea of epistemic coercion – a coercion that operates without recognition or awareness by those subject to it – self-contradictory.

We have found at least one instance of an author who attempts to broaden the definition of coercion and expand its application also to instances characterized as "epistemic coercion." Dandelet [2021] proposes a concept of epistemic coercion building on the ideas of J.S. Mill about the coercive potential of public opinion. In Dandelet's framework, coercion still involves issuing an implicit or explicit threat, but it becomes "epistemic" if the threat modifies how the threatened individual structures their epistemic inquiries. This conceptualization captures phenomena such as self-gaslighting, where a victim of sexual abuse may alter their perception of their own experiences due to the threat of skepticism from others. The threat of being labeled a liar or not mentally stable creates a social pressure that ultimately influences individuals' own perception and memory. Dandelet's framework thus extends the concept of coercion beyond its traditional boundaries, illuminating the subtle yet impactful ways in which coercion operates within social contexts. We think it probably captures also the example that Turner gives of professions of faith that are coerced by forced repetition until they become

internalized [Dandelet, 2021, p. 3], but it is also clear that this meaning of epistemic coercion is not of central interest to Turner and is not relevant to the key test case of curation.

Reasons Why Epistemic Coercion Is an Inaccurate and Unproductive Way to Characterize Curation Practices

To evaluate Turner's assertion that algorithmic curation constitutes a form of epistemic coercion, it is necessary to examine, however briefly, what is involved in curation. We draw on Davis [2017], who offers a theoretical framework for analyzing social media curation. Several points made by Davis are especially pertinent to this question.

First, *self-curation* is a massive and inescapable phenomenon. "Through digital media, people curate both who they are and what they consume." By the same token, they are constantly subject to the "curatorial efforts" of other individuals. [Ibid., pp. 771–774] Second, this massive interplay between productive and consumptive curation takes place within boundaries set by "curatorial code," namely "platform architecture and algorithms… through which users are encouraged or alternatively prevented from producing and consuming in particular ways." [Ibid., p. 776] In short, curation refers to a vast set of activities, of which the operation of algorithms that make certain posts more or less discoverable for certain individuals is a relatively small portion. Third, while some mechanisms underlying algorithmic curation are known, such as prioritizing image-based posts over text-based ones, tailoring content based on user preferences and past behavior, or restricting the reach of posts violating the platform's policies, much of the process remains "blackboxed." As a result, "neither producer nor consumer can fully predict which pieces of content will stand out or alternatively, pass in quiet obscurity," or what audience will they reach. [Ibid., pp. 777–778]

This brief description of social media curation suggests to us that it is inaccurate to describe the operation of curation neither as epistemic coercion of consumers of online information, nor as coercion of producers of online information.

The crux of Turner's argument is about consumption. Being prevented from reading certain categories of posts, he argues, should count as an instance of epistemic coercion. The problem with this argument is that given the overwhelming volume of information generated and shared on social media platforms, coupled with our limited cognitive capacities, the mechanism of curation is ubiquitous, inescapable, and absolutely necessary in order to navigate what has been termed the "information glut." In this context, the *absence of curation* could potentially be just as

coercive, completely overwhelming consumers' abilities to absorb and evaluate any information. As we learned from Davis, self-curation is the primary mechanism by which this reality is handled. While the curatorial code sets limits to the primary mechanism of self-curation, there is no reason to assume that consumers are unaware of algorithmic curation. This means that one cannot disregard curatorial agency when assessing the operation and impact of the curatorial code. Users may choose to go along with the choices made by the code, adopting them as continuous with their project of self-curation. They may also seek to "teach" or "game" the algorithm, since much of algorithmic curation relies on analyzing users' past behaviors and engagements with content. Or they may consciously resist the limits imposed by the curatorial code by diversifying their sources, or by devising strategies to circumvent existing restrictions. The main point is that the curatorial code does not confront individual curatorial strategies as an external limit, but the two are intertwined in complex ways. Self-curation strategies rely on and are continuous with the affordances of the curatorial code, while the code depends for its operation on the actors' interest in self-curation. In short, the boundary between coercion and resistance is blurry, as becomes clearer later in Turner's article when resistance is presented as essentially a project of self-curation, and the "means of resistance are kin to the means of coercion." [Turner, 2024, p. 34]

By seemingly treating all curation of social media as potentially epistemic coercion, Turner, just as he criticizes recent discussions on epistemic injustice for having a hidden "ideal theory" of communicative situation, seems to have a hidden ideal theory of the circulation of discourse suggesting a free, unrestricted, unstructured information environment. The corollary of this Feyerabendian "anarchism" is a tendency to treat consumers as "information dopes" suggesting a lack of agency and autonomy while overlooking their ability to navigate curated content, and indeed the primacy and necessity of self-curation.

While the crux of Turner's argument is about the conditions surrounding the consumption of information, the plausibility of characterizing curation as epistemic curation relies, as we saw earlier, on the idea that what is being internalized is an inappropriate constraint on speakers and content, i.e. it is an argument about curation as coercion exercised over the production of information. This argument too is unconvincing. The concept of coercion, as we saw, requires the idea of a threat being communicated. But awareness by users of algorithmic curation does not rise to the level of perceived "threat" that could justify conceptualizing the operation of the curatorial code as coercion. As we noted earlier, the black box nature of the algorithm means that individuals cannot fully predict how their posts will be treated by the curatorial code. Moreover, even when they can predict, namely when curation rules are explicit, such as those aimed at restricting harmful content, the effect of the rules is not

to sanction users but to modify the likelihood of their posts reaching particular audiences. The ensuing dynamic is better understood not as coercion but as "strategic interaction" and the sort of "covering" and "uncovering moves" analyzed by Goffman as "expression games" [1969]. Arguably, the fear of one's account being suspended, which is the most severe sanction in the toolkit of algorithmic curation, can be thought of as a threat and thus a form of coercion. Yet, not only is it rare and hard to enforce, this sanction too merely modifies the half-life and reach of posts. What is involved is not a restriction on one's freedom of expression, but merely a limit on how widely and how long one's statements circulate in the public sphere. We emphasize this not only because it is questionable whether the concept of coercion should be stretched to encompass such outcomes, but also because it will be central to our argument below about curation as rarefaction.

Curation as Rarefaction

When Michel Foucault gave his inaugural address at the College de France [1970/1972], nothing could have been further from his mind than algorithmic curation, a practice that did not yet exist, not even as a twinkle in the eye of a young programmer. And yet, we believe that Foucault's concept of rarefaction, elaborated in this lecture, following the development of it in *The Archeology of Knowledge* [1969/1972], and his account of the different mechanisms and strategies of discursive rarefaction, can be especially illuminating when considering algorithmic curation.

Early into the inaugural lecture, Foucault famously advanced an "hypothesis… to fix the terrain… in which I shall be working," namely that "in every society the production of discourse is at once controlled, selected, organized, and redistributed according to a certain number of procedures whose role is to avert its powers and dangers, to cope with chance events, to evade its ponderous, awesome materiality." [Foucault, 1972, p. 216] Some of these procedures are "rules of exclusion… [concerning] what is prohibited." They operate "on the exterior" of discourse, so to speak. The bulk of the lecture, however, was dedicated to "internal rules, where discourse exercises its own control." [Ibid., p. 220] It is with respect to the different systems of internal rules that Foucault introduces the concept of "rarefaction."

While systems of rarefaction can take different forms – Foucault talks of commentary, the author, and discipline as three distinct systems – they share several crucial characteristics that we discuss below, pointing out their relevance for understanding algorithmic curation.

First, rarefaction is "involved in the mastery of… events and chance." [Ibid.] An event is something that happens once and will not be repeated,

unless work and energy are expended in preservation, dissemination, and repetition. Foucault suggests that we treat statements as discursive events, and that "the analysis of statements… is a historical analysis" tasked with explaining "what it means for them to have appeared when and where they did – they and no others." [Foucault, 1972, p. 109] In this respect, he suggests a "gradation between different types of discourse in most societies." On the one hand there are "ordinary" discourses that exist momentarily and vanish quickly: "uttered in the course of the day and in casual meetings… [they] disappear with the very act that gave rise to it." [Ibid., p. 220] On the other hand, there are discourses that are "spoken and remain spoken, indefinitely, beyond its formulation, and which remain to be spoken." [Ibid.] In these discourses – typically religious, literary, juridical, and scientific discourses – operate certain mechanisms of rarefaction that select statements to be preserved, reproduced, regulated, reactivated, and disseminated such that they have a lasting presence and influence over time on future discourse and knowledge production. This should sensitize us to realize that social media platforms are sites of a novel form of discourse, a sort of middle ground between those momentary "ordinary" utterances that Foucault thought were destined to disappear immediately and thus require no organized system of rarefaction, and those statements carefully selected – shall we say "curated" – to become lasting discursive events. So new is this type of discourse, it has given rise to a new demand and a new "right to be forgotten." It should sensitize us that what is involved in algorithmic curation is not a restriction on expression, but on the preservation and dissemination of expression, namely rarefaction, the activation of a set of internal rules limiting the half-life and circulation of statements that do not conform to certain conditions.

Second, rarefaction is not an external constraint on discourse, but a constitutive affordance of the very possibility of discourse formation. The "rarity of statements" is a necessary condition for them to become "things that are transmitted and preserved, that have value, and which one tries to appropriate." [Ibid., pp. 119–120] The procedures of rarefaction, including rules of exclusion, classification, and application of claims, are not only omnipresent while being historically contingent, numerous, and imposing, but they are absolutely necessary for the appearance of discourse. As Foucault points out, "it is not easy to say something new" [Ibid., p. 44], and we are enabled to do so exactly by preexisting rules, both limiting and allowing to formulate heterogeneous novel statements." [Ibid., p. 224] Foucault notes that the aforementioned "gradation" or "gap" between the plethora of ordinary utterances and the rarity of preserved discursive statements "is neither stable, nor constant, nor absolute… but while the details of application may well change, the function remains the same, and the principle of hierarchy remains at work." [Ibid., p. 220] This seems almost prescient, though we are sure he did not have

in mind algorithmic curation. Nonetheless, the rise of social media does indicate that the gap between ephemeral utterances and statements "that are transmitted and preserved, that have value" has shifted once again. The boundary between the two is blurred by the electronic media that transform ephemeral utterances into widely circulated and enduring statements. It is unsurprising, therefore, that mechanisms of rarefaction are activated to introduce at least a modicum of rarity to this new type of discourse.

Finally, the principle of rarefaction that Foucault describes as "discipline," provides a particularly illuminating lens through which to understand why curation is better analyzed as rarefaction, rather than coercion. Foucault describes disciplines as "anonymous system[s] at the disposal of anyone who wants to or is able to use [them]," [Foucault, 1972, p. 221] providing a framework for the construction of statements, allowing new propositions to be produced, ad infinitum, within specific restrictions. Each discipline, as a particular discursive field, consists of "onerous and complete conditions" that a statement must fulfill "before it can be admitted within a discipline; before it can be pronounced true or false it must be… within the true." [Ibid., p. 224] Being within the true, even if the statement proves to be an error, is what gives the statement "value… [that] one tries to appropriate." [Ibid., p. 120] Thus, disciplines do not coerce speakers to speak in a particular way. They tempt or incentivize them by offering them the power of being "in the true," of enunciating what is taken to be true discourse. Individuals are not told what to say or not to say, but they are invited to step into a specific discursive position or "enunciative modality" [Ibid., pp. 50–55] and speak from it. Social media curation operates analogously. It doesn't offer speakers the power of being "in the true," but it does tempt and incentivize them with the power of "visibility." By definition, not all statements can be visible, nor to the same extent. Visibility, like "being in the true," relies on a principle of rarity. Algorithms favoring certain types of content, explicit restrictions regarding content deemed harmful, or regarding modes of expression deemed offensive, a curatorial code that favors and promotes certain formats over others – these are operators of rarefaction that together constitute an enunciative modality that users are encouraged, tempted, and incentivized to inhabit if they want to be "visible."

At its core, rarefaction in the context of social media involves the controlled, selective, and organized production and dissemination of curated content, content producers, and modes of expression, which might be considered analogous to the principle of discipline. Importantly, Foucault's analysis allows us to distinguish rarefaction from coercion. While rarefaction involves the imposition of constraints and regulations on discourse production, individuals are not forcibly coerced into compliance. Curation-qua-rarefaction does not operate on the "exterior of discourse" prohibiting expression. It is a set of "internal rules" that is constitutive

of the very possibility of discourse. Curation invites users to step into a particular discursive subject position and speak from within it, in order for their statements to be preserved, disseminated, and have the value of "visibility" that "one would like to appropriate." Turner has drawn our attention to the increasing significance of algorithmic curation, but it does not indicate an intensification of epistemic coercion. Quite differently, it indicates a new rearrangement and ordering of discourse, the formation of an interface between "ordinary utterances" and "disciplines," between everyday talk and expert discourse, an intermediate realm where discursive events are neither ephemeral nor preserved "in the true." Instead of denouncing it as coercion, it would be better to try to work out what should be the new rules of rarefaction and how the two realms of discourse can be adjusted to one another.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 62–69
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 62–69
DOI: https://doi.org/10.5840/eps202461340

ARE THE TYPES OF EPISTEMIC COERCION AND THE MEANS OF ITS RESISTANCE OF THE SAME NATURE?

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One of the most challenging issues, essential for the actual state of science, is the search for a fragile balance between scientific normativity, openness, methodological proliferation and other key concepts, associated with the modern world of research. Paul Feyerabend understood science not as a detached and hermetic self-sufficient reality, but as a structural part of the social world, liable to politicization, discrepancies and inconsistency. His analysis of science, its strategies and institutions involved and, in a way, undermined a long living concept of science as an objective, rational and neutral domain. Following his discoveries, today researchers in general, philosophers of science and social epistemologists in particular, face the problem of corrupted practices, which jeopardize the acquisition of true knowledge. According to the ideas of professor S. Turner, there are two strategies of approaching epistemic coercion: conformity or resistance. Aimed at scientific progress and sustainable development the scientists strive to overcome obstacles of technological, organizational and administrative nature. It presents the case of epistemic resistance. In other circumstances, when the mechanisms of epistemic coercion function without recognition and impediment, the epistemic environment conforms. Professor S. Turner's article gives an in-depth analysis of epistemic coercion as a ubiquitous phenomenon, pervading intellectual and institutional practices of science and public life. Having stated the existence of the new instruments of epistemic control, he also sheds light on the requirement of the new forms of resistance. In the following article the author consequently scrutinizes the types of epistemic coercion offered by S. Turner. In order to highlight a technological perspective on all three types of epistemic coercion (information deprivation, normalizing/stigmatizing, legitimating/delegitimizing), the author places the emphasis on algorithm – based practices as a distinctive type of information deprivation. Presented from the standpoint of technological design, an algorithm could be seen as a technologically embodied form of epistemic coercion. Further on, the author argues that some of the means of resistance, given by prof. S. Turner, are more suitable to perform epistemic coercion, rather than resisting it. For instance, transparency has compromised itself as an untrustworthy concept put in use to conceal more information than to reveal. Tribalism is proven to be another arguable means of resistance because of its limiting effect on practices of open internal and external scientific communication. Finally, the author augments the list of means of epistemic coercion with construction of ignorance and coercive effect of expertise.

Keywords: epistemic coercion, transparency, tribalism, technocracy, expertise

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Средства эпистемического принуждения и методы сопротивления им – одно и то же?

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Одной из самых острых проблем, ключевой для современного состояния науки, является поиск хрупкого баланса между научной нормативностью, открытостью, методологическим богатством и ключевыми концептами, связанными с современным миром исследований. Пол Фейерабенд понимал науку не как отдельную, герметичную и самодостаточную реальность, но как структурную часть социального мира, подверженного политизации, противоречиям и изменчивости. Его анализ науки, ее стратегий и задействованных институтов в некоторой степени «подорвал» концепцию науки как объективной, рациональной и нейтральной области. Сегодня исследователи в целом, философы науки и социальные эпистемологи в частности также сталкиваются с проблемой искаженных практик, препятствующих получению истинного знания. Согласно идеям профессора С. Тернера, существуют две стратегии в отношении эпистемического принуждения: подчинение и сопротивление. Нацеленные на научный прогресс и устойчивое развитие, ученые стремятся преодолеть обстоятельства технологической, организационной и административной природы. В этом состоит эпистемическое сопротивление. В иных обстоятельствах, когда механизмы эпистемического принуждения функционируют скрыто и беспрепятственно, эпистемическая среда им подчинена. Статья профессора С. Тернера предлагает глубокий анализ эпистемического принуждения как повсеместно распространенного явления, пронизывающего интеллектуальные и институциональные практики науки и общественной жизни. Обозначив новые инструменты эпистемического контроля, он также проливает свет на необходимость поиска новых способов сопротивления. В своей реплике я критически анализирую типы эпистемического принуждения, предложенные профессором С. Тернером. Для того чтобы обозначить технологическую перспективу трех видов сопротивления (информационная депривация, нормализация/стигматизация, легитимация/делегитимация), я особо выделяю практики, основанные на алгоритмах в качестве отдельного вида информационной депривации. С точки зрения технологического дизайна он может быть представлен как еще одна форма, воплощающая эпистемическое принуждение. Далее, предлагается тезис о том, что некоторые из средств эпистемического сопротивления являются средствами принуждения. Например, прозрачность, эпистемически не благонадежный концепт, используемый чаще для сокрытия, нежели раскрытия информации. Трайбализм обладает тем же свойством, становясь препятствием открытой научной коммуникации. Наконец, я расширяю список средств эпистемического принуждения, дополняя его конструированием незнания и принуждающего действия экспертизы.

Ключевые слова: эпистемическое принуждение, прозрачность, трайбализм, технократия, экспертиза

Today many theorists and philosophers of science find themselves in quite an extraordinary state of matters in the conceptual environment. On the one hand, a great number of researches demonstrate that scientific institutions could be perceived as organizations of a rare kind: the last resort of objectivity, where the principles of neutrality, rigorous methods and strict approaches serve the one and only ideal of true science. On the other hand, there are a great number of researches, which show that science is yet another part of social reality, deeply politicized, epistemically coerced, structurally and methodologically corrupted. The question is: how can one navigate in the reality where the lack of scientific normativity leads to total social determinism (constructivism)? Even B. Latour, who contributed profoundly into the research of the social matters of science, criticized those tendencies and considered them as unproductive. Before we continue with particular issues, I would like to outline a more general picture of science, which due to its structural specificity provoked the thriving of epistemic coercion.

There are different images of science which serve different purposes, all true and none complete. The first one is exported for the public to see: the most exciting, full of amazing truths revealing themselves through the remarkable discoveries in physics (string theory, back holes, quarks, etc.); genetics (newly discovered genomes), medicine (bacteriology and virology, in particular) and other fields of research. The achievements of natural sciences provoke interest and resonate greatly with the public. The reason for such interest is a unique combination of macro and micro scales of the researched matters that challenge human ability to perceive, understand and conceptualize the world.

A different image of science could only be seen from the downside of it. It is filled with routines, at times daunting, long-term study, search for solutions to the issues and puzzles that are not easily resolved. Therefore, it cannot be used to promote the image of science or even explained properly in the public eye as all its seams are potentially not appealing to a lay man, a citizen and a taxpayer. The most attractive image the public demands is associated with accuracy, certainty, accountability. It should respond to the public request accordingly. One drastic issue here is that the public itself does not know whether it needs a plethora of expert opinions or just the one, which waives all the responsibility from ordinary people and makes science itself accountable for the potential consequences. More often than not, the public image of science is the result of its inner workings, although presented as an ideal image from the first description. This issue comes from the fact that many concepts of science are related to the pursuit of excellence.

The issue of "ideal theory" professor S. Turner stated is extremely important and indeed problematic. One can have difficulty defining its place in real scientific practice. It is not clear whether "ideal theory" is an artifact of the history of science or an actual system of explanations

with subordinate methodology we should not give up. The inability to give a definite answer instigates further confusion, which could be simultaneously seen as a crisis of scientific normativity and/or deliberative hypocrisy. In the former case, the scientific community simply cannot find a viable alternative to this ideal, while in the latter one, uses purposely (which might also mean "politically") the drawbacks of the concept of the "ideal theory".

The universal rational method, the basis for the "ideal theory", is widely criticized today by the supporters of feminist and postcolonial epistemologists. It is considered as a tool used to force homogenization of research practices. The parallel between geographical/political colonization and rigorous scientific methodology is quite common as modern science has been associated with the western science for a long time. Although this conceptual platform is valuable in its own right, here we can make an analogy with the created appearance of consensus. As professor S. Turner points out, the consensus is what we can see on the surface. But it is underlined by the forceful processes of normalization and stigmatization. The latter ones define the ways scientific institutional practices are performed, determine the mainstream research issues and the "proper" ways to approach them. Algorithms are the direct successor of the universal rational method. And although the development of AI has achieved some extraordinary results, we still cannot waive responsibility when we deal with different forms of discrimination and injustice.

The Algorithm/Transparency Issue

It leads to the question, concerned with mediation/transmission of information (and knowledge as its conceptualized form). As professor S. Turner explained, transmission is one of those weak spots, where the biases could be incorporated the easiest. On the surface, it seems to be a matter of the technical capability modern systems provide. But what is hidden there is the issue of responsibility for epistemic coercion, not taken on either side of the transmitted message. Therefore, every time the researchers in the humanities bring up the question of technological influence over any kind of social processes, especially the scientific and institutionalized ones, it turns out into the question of distributed responsibility. In this particular discussion on epistemic coercion, it concerns the matter of responsibility for the trustworthiness of the transmitted message/knowledge.

The mere notion of transparency is problematic. Even more problematic is the actual content of this concept. It can be seen at least from two standpoints appropriate for the current discussion. The first one is related to the field of ethics, justice and moral stands of the public agents, performing professional duties (in science, politics or business). Virtue

epistemology could help here, as a virtuous agent is honest, just and transparent in his conscious intentions to find the truth and express solely true justified beliefs. From another point of view, transparency relates to a number of technical settings that make up the system, for instance, the algorithm. Algorithms are in the technical core of a digital platform. The issue of transparency arose when the platforms turned into the ubiquitous tool of data and metadata preservation. The phenomenon of transparency itself is the result of the public request, which demanded the businesses to avoid discrimination. The use of algorithms itself has nothing discriminative in it. Yet, the following decisions companies make, which are based on the data algorithms provide, could potentially harm people, social groups and the environment [Safransky, 2019 – a great example of the Detroit's "red zoning" algorithm in action, which proved to be the example of the "algorithmic violence"].

The greatest pragmatic controversy is that algorithms are the objects of intellectual property protected by the law. It means they are "black boxes" not only from the epistemic point of view, but from the judicial one as well. The only available public outcome of their work (and the demonstration of transparency) is the body of data they have earlier produced. It has no practical sense without the means of interpretation, hence could be manipulated. As a result, data becomes the real ground of epistemic coercion. One of the biggest issues of transparency is the idea that anyone, without special preparation or professional skill (or special knowledge in a field different from his/her own if we consider scientific communities) can draw adequate conclusions about the systems, as if they are "equally visible and understandable" [Annany, Crawford, 2016, p. 979]. As a rule, this is not the case and there is always a threat to make any kind of desired conclusions out of that data.

The whole idea of transparency appeared about the same time the notion of the "audit society" did. The latter is based on the observation of the "audit boom" in the late 1980s [Power, 1999]. It reflected an outrageous increase in the number and scale of public surveillance practices "driven by closely related political demands on behalf of citizens, taxpayers, patients, pupils and others for greater accountability and transparency of service providing organizations" [Power, 2000, p. 113]. Together with the methods of disclosing information, appeared many ways to hide it, i.e. to create the image of transparency without being transparent.

It seems to be quite similar to the means of epistemic coercion – inclusion and exclusion, legitimizing/delegitimizing professor S. Turner analyzed this in his paper. The key issue with the means of coercion and the means of resistance to it is that all of them are procedural and in this respect, algorithmic. Unfortunately, it comes to a point, where one cannot tell the difference between the algorithmic and the bureaucratic acts. As M. Power pointed out, there's a threat of turning actual revision into the process of getting "a badge of legitimacy" [Ibid., p. 117].

Construction of Ignorance

Construction of ignorance is another means of epistemic coercion. It could be added to the list of epistemic threats that ought to be taken into account while performing epistemic practices.

There are different forms of epistemic ignorance that should be discussed here. The first one is related to algorithms. It could hardly be avoided due to the lack of proper tools of interpretations and massive bodies of the produced data. In the case of "algorithmic ignorance" it will be fair to notice that when something does not serve the purpose of transparency, it fosters ignorance. Whether or not this form of ignorance is produced deliberatively, it has all the potential to cause real harm to the epistemic environment. First of all, it could be consciously used as an instrument of discrimination. Secondly, if algorithmic ignorance technically multiplies itself making the body of data inapprehensive, the true epistemic authority behind it becomes unidentifiable.

Another form of ignorance is related not to the technical, but the "human" or social aspect of it and concerned with agency. The idea of transmission as the most vulnerable and potentially compromised element of the system prone to epistemic coercion could be supplemented by the issue of the potentially coerced agents who carry it out, i.e. the experts. The institute of expertise is an extremely broad and problematic topic that should inevitably be narrowed down to a limited number of questions here. The most important one is: what role does the expert play in the process of epistemic coercion?

Experts do not transmit, but communicate the message, connecting the inner world of professional domains and the outer world of the continuous demand for the expertise. Although the institute of expertise has been proving its value and discrediting itself with variable success during the whole time of its existence, it has never ceased to be a part of the scientific, social and political environment. What makes it dangerous from the epistemic point of view, is the mix of the political and the scientific aspects of it.

The institute of expertise and its influence on political and social decision making is so drastic it could be seen as another means of epistemic influence, including epistemic coercion. The underlying processes of presentation and legitimization of public expertise is depolitization of the public realm. The experts are skillful and technocratic. The whole idea of technocracy is based on the domination of the expert community. Here we can draw a parallel between the argument of professor S. Turner, who claimed transmission to be the weakest spot of epistemic security. Indeed, experts are notorious for performing the same task, but as human agents. They hold specific professional knowledge and execute the duties in the key political and economic institutes. Depoliticized public realm is

not only free from the "conventional" politics, but from the civil public debate. The expert community defines the deliberative framework for the public debate or, probably, epistemically coerces it. The context of discussions that suits the technocratic model is limited to some kind of solutionism, where civil citizens are made to choose from a restricted number of options, which are supposed to fix the issues technically. It reminds of how the universal rational method in science is made to unify (or reduce diversity of?) the results and create the image of the universal scientific model.

Moreover, as some researchers see it [Stone, 2012], technocratic approach is just an instrument of conventional politics, which is used to stabilize the system and "blow off steam" in times of political instability. Here we can agree on the necessity of a tribal approach professor S. Turner mentioned. Civil society should not be deprived of deliberative practices and should stand against technocratic methods as a "civil tribe". Yet, there are some dangers of tribalism that need to be addressed below.

The Issue of Tribalism

Information tribalism described by professor S. Turner as a means of resistance to epistemic coercion is, to some degree, a different name for collective epistemology. Some of the advantages of this phenomenon are obvious: there would have been no scientific schools without it, as well as no research tradition. Tribalism could be seen as a condition for deliberative practices in the search of a consensus. Although, we do not always find a compromise or a convention to be a productive thing for scientific progress, we cannot easily undermine its importance for epistemology.

Still, some thoughts on the issue of excessive tribalism should be considered. Tribalism is deeply rooted in the practices of scientific institutions and is highly doubtful to cease existence only because of the criticism directed its way. Academic communities constantly fluctuate between the ideals of universalism with homogenous outlook and tribalism as the essential principle used to create and develop the schools of different intellectual traditions.

The problem is that there is a definite similarity between favouritism as a means of epistemic coercion and tribalism as a means of resistance to it. We can also add epistemic paternalism to the list of the "-isms" that fall into both categories, as it is quite common for the tribalistic practices. The focus here is on the world of academia to become vulnerable, as the "results in strong tribalism, where the universalistic tendencies of science and the academy in general are dampened in favor of a kind of conceptual nepotism" [Wilkins, Ebach, 2014, p. 61].

In conclusion, I would like to point out once again that the nature of the means of epistemic coercion and the means of resisting it are of quite ambiguous nature. When we try to comprehend all the relations between different notions, such as algorithm, transparency, tribalism, means of stigmatisation/legitimisation we should take into account how vulnerable they are. While using them, it is important to critically analyze the epistemic context and every particular case where they are applied.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 70–76
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 70–76
DOI: https://doi.org/10.5840/eps202461341

Epistemic coercion and the epistemic leviathan

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Stephen Turner identifies forms of epistemic coercion. My reply focuses on the source of experts' power to epistemically coerce others. I identify one such source, which I call "The Epistemic Leviathan." The Epistemic Leviathan is formed in a time of crisis, when some members of society grant experts the exclusive right to determine truths believing that only the experts can resolve the crisis. I suggest that we have seen this happen during the COVID-19 pandemic.

Keywords: expertise, expert testimony, lab leak theory, media, conspiracy theory

Эпистемическое принуждение и эпистемический левиафан

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Стивен Тернер выделяет формы эпистемического принуждения. Мой ответ посвящен источнику способности экспертов эпистемически принуждать других. Я выделяю один из таких источников, который я называю «эпистемическим Левиафаном». Эпистемический Левиафан формируется во времена кризиса, когда некоторые члены общества предоставляют экспертам исключительное право устанавливать истины, полагая, что только эксперты могут разрешить кризис. Я предполагаю, что мы уже видели, как это происходило во время пандемии COVID-19.

Ключевые слова: экспертиза, экспертные свидетельства, теория утечки информации из лаборатории, СМИ, теория заговора

Stephen Turner's paper contains an excellent taxonomy of forms of epistemic coercion, and respective forms of resistance. Turner identifies three forms of coercion that are typically *internal* to science: epistemic gatekeeping, e.g., deciding what gets published, intimidation, e.g., threatening to harm a researcher's career, and indoctrination; namely, initiation into a paradigm. He then identifies three forms of coercion that are *not*

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necessarily internal to science: information deprivation, normalization and stigmatization, and legitimating and delegitimating.

This distinction raises an interesting question. In our society, scientists enjoy the autonomy to run their own business. Within science, scientists have the exclusive power – which is often unnoticed and taken for granted – to epistemically coerce each other. But from where do they get the power to epistemically coerce outside science? Where does their power to enforce their views on others come from when they are operating in greater society? In my comment, I'd like to focus on this question, and suggest one way (among many) by which experts get this power. I call it the *Epistemic Leviathan*.

Turner's paper does not contain many examples. The elephant in the room, it seems, is COVID-19. During the pandemic, we have all seen the experts change their minds frequently, while each time presenting their current view as the unshakable truth, and labeling anyone who disagreed as an enemy of science, truth, and rationality. Recall how in the early days of the pandemic, we were told that masks didn't work (but we should leave them to the medical teams that need them anyway); then we were told they absolutely worked; and then we were told that they still absolutely worked, but we should only wear the N95 masks. A lesser-known example: early in the pandemic, the World Health Organization (WHO) claimed that it was an established fact that COVID-19 was not airborne, only to quietly retract that claim two years after [Lewis, 2022].[1]

As Turner notes, within the scientific community experts have power. They can gatekeep the flow of information, affect the careers of other experts, and indoctrinate young researchers entering the field. In general society, left to their own devices, experts usually do not have enough power to epistemically coerce others. But during the COVID-19 pandemic, experts did have such power. Where did it come from?

A familiar answer that comes from Foucault and those who follow in his footsteps [e.g., Rose, 1998] is that this power comes from the modern state. At the risk of oversimplification, according to this narrative, biomedical experts have formed symbiotic relationships with the state Biomedical experts, primarily psychiatrists and psychologists, have developed medical and statistical categories that allow the state to govern the masses. The experts distinguished the statistically-normal, normative, tax-paying, and law-abiding citizens from the statistically and sexually deviant, criminally insane, and disruptive citizens, who pose a threat to public order. The experts have given state the justification to take the freedoms of its citizens, backing it with the authority and objectivity of science. In return, the state has granted the experts the power to determine truths and enforce them. According to Foucault, however, neither

[1] For social epistemologists' insightful analyses of additional examples, see Intemann and de Melo-Martín [2023], Birch [Birch, 2021], and Winsberg et al. [Winsberg, Chris, 2020].

the state nor the experts ultimately pull the strings, as they are both caught up in the logic of the knowledge they coproduce.

Taking a cue from Foucault and Schmidt, Italian philosopher Giorgio Agamben has applied this explanation to COVID-19. Agamben is generally associated with the claim that modern politics has turned into biopolitics: the modern state seeks to make the *state of exception* its normal modus operandi with the aim of revoking its citizens' freedoms and controlling their biological body in the name of public safety and security. In a series of "I-told-you-so" blogposts written during the COVID-19 pandemic, Agamben [Agamben, 2021] argued that the state used COVID-19, which was "a normal flu, not too dissimilar to the ones that recur every year" [Ibid., p. 13] as an excuse to finally declare a lasting state of exception and create

> exactly that which those who govern us have tried to actualise many times before: the closure of universities and schools once and for all, with lessons conducted only online; the cessation of gatherings and conversations on politics or culture; and the exchange of messages only digitally, so that wherever possible machines can replace any contact – any contagion – among human beings [Ibid., p. 16].

Even Agamben's sympathetic followers, however, acknowledge that this explanation leaves much to be desired. Has the state really always secretly aspired to lock us down in our homes? If COVID-19 was just an ordinary flu, why hadn't previous flus led to a worldwide crisis? And even assuming that there was nothing special about COVID-19 and Italy just reached its breaking point, why did it trigger a global cascade?[2] Why did the media, which usually has its own agendas, play along with the state? Why haven't lockdowns become the new normality as Agamben predicted? How come we have returned, more or less, to a pre-pandemic routine? When the state finally gained the power it had always sought, why did it give it up?

More than wrong, Agamben's explanation is misleadingly partial, and overlooks important factors. The state is a heterogeneous body with many actors who have different and conflicting agendas. Experts are also not a homogenous group. As Turner convincingly argues, every form of epistemic coercion generates its respective form of resistance. No single actor has the power to trigger such comprehensive state action, and epistemically coerce all other actors.

Winning a war requires making alliances. When power is distributed among actors, for example, when it is not the case that Stalin [Stalin, 1950] can settle a controversy in linguistics over the pages of *Pravda*,

[2] In the 1970s, American epidemiologists were convinced that the Spanish flu was making a comeback, and convinced the US government to start a national vaccination campaign. Other countries, however, were not persuaded and waited to see how events would unfold in the US. In retrospect, this campaign was uncalled for [Kolata, 1999].

epistemic coercion requires some empirical facts that stick. Without such facts, it's hard to recruit allies, let alone coerce other actors. In the case of COVID-19, the fear that the death toll would be huge, and hospitals would collapse was sufficiently backed by evidence to trigger a cascading reaction. That doesn't always happen.

The different distribution of epistemic and political power in different countries explains why they experienced different dynamics despite similar initial conditions. For example, in line with previous ideological divides involving science, such as those concerning abortion or teaching evolution in schools, the progressive left in the United States sided with science and tended to support lockdowns and school closures, while the conservative right tended to oppose them. By comparison, in Israel, the lockdowns and school closures were regarded by the liberal left as attempts by Prime Minister Netanyahu to secure his power and establish a de facto authoritarian regime after failing to win democratic elections. Thus, in Israel, the liberal progressive public was the one who protested to return the children to school.

Acknowledging such complexity is the first step in explaining how epistemic coercion is possible, but it still does not explain the peculiar case of the suppression of the lab-leak theory by major mass-media and social-media outlets. In the rest of the paper, I focus on this example.

From the start of the pandemic, mainstream outlets, especially left-leaning, including *The New York Times* and *The Guardian*, dismissed as a "conspiracy theory" the claim that COVID-19 leaked from a virology research lab in Wuhan. They failed to distinguish between the claim that COVID-19 accidentally leaked from a lab, the claim that it was purposefully developed as a biological weapon, and the claim that it was purposefully released [Flam, 2021]. In September 2020, respected fact-checking site *Politifact* conclusively ruled out the lab-leak theory, claiming that the "genetic structure of the novel coronavirus rules out laboratory manipulation. Public health authorities have repeatedly said the coronavirus was not derived from a lab." It also stated that the "consensus of the scientific community and international public health organizations is that the coronavirus emerged from bats and later jumped to humans" [Yan, 2020]. *Politifact* retracted this post in May 2021 because the claim about the impossibility of genetic manipulation was unsupported. But in fact, there had been no consensus either. A *Nature* report from 2021 describes the question of the origin of COVID-19 as open [Maxmen & Mallapaty, 2021]. It is still open in 2024 [Dewan, 2024].

How did the official version about the natural origin of COVID-19 emerge and how did it acquire foothold? Dewan [Ibid.] nicely summarized its origins:

> In February 2020, White House medical adviser Anthony Fauci was alerted during a conference call with a group of scientists that COVID-19

> might have originated from a lab. Shortly after, a paper titled "The Proximal Origin of SARS-CoV-2" was authored by conference participants and published in *Nature Medicine* [Andersen et al., 2020]. It doubted that a lab leak was "plausible." That same month, the medical journal *The Lancet* published a statement signed by 27 scientists rejecting the theory [Calisher et al., 2020], which expressed "solidarity with all scientists and health professionals in China." It added: "We stand together to strongly condemn conspiracy theories suggesting that COVID-19 does not have a natural origin."

In March 2020, the WHO published a report that conclusively stated that all evidence suggested that COVID-19 had natural origins and did not leak from a lab [WHO, 2020]. Whether this conclusion was based on solid empirical evidence, sloppy research, or part of a cover-up, the WHO report certainly seemed like an attempt to settle the issue once and for all; namely, a clear attempt at epistemic coercion. Of course, as Turner argues, coercion generates a reaction: the more you try to epistemically coerce, the more it seems to some people that you have something to hide.

While it can be argued that promoting COVID-19-denial, vaccination hesitancy, mask skepticism, or lockdown resistance might cause people to endanger their own or others' health by not getting vaccinated, not wearing masks, or not keeping social distance, a person's view about the origin of COVID-19 does not have such an effect. It should not matter what I think about the origins of COVID-19 for whether I wear masks. The usual justification for preventing the spread of misinformation does not apply in this case. This makes its suppression by the media more puzzling.

So why did the mainstream media and social media platforms participate in the coercion? The answer is complex and requires empirical research that exceeds the scope of this paper. But I would like to propose a hypothesis: it was the *Epistemic Leviathan*. Thomas Hobbes [Hobbes, 1651] famously contends that humans, driven by self-interest and a constant pursuit of power, exist in a "state of nature" marked by conflict and insecurity. To escape this condition, individuals surrender their natural rights to a sovereign ruler, creating a social contract. The Leviathan, representing this sovereign power, ensures order and security through its authority. Hobbes emphasizes the necessity of absolute obedience to maintain social cohesion, prioritizing stability over individual freedoms.

I suggest that something similar happened during the COVID-19 pandemic. During the pandemic, many people were genuinely scared. This was the first global pandemic since the Spanish Flu of 1918, which very few in 2020 lived to remember. From the early days of the pandemic, scientific experts took the lead. Fearing for their lives, many people, especially in the progressive, liberal, educated elites, decided to put their faith in the experts. They surrendered their epistemic right to make up their own minds, and let the experts do this for them. Only by surrendering our

individual thinking to the rational epistemic authority of science could we survive the pandemic, or so they thought.

Once the Epistemic Leviathan was born, any expression of doubt about the experts' official claims, including dissent from other experts, was seen as violating the new social contract, and as endangering our chances of surviving the pandemic. Once we gave the power to the experts, it had to be absolute. I suggest that this is why social media platforms began to zealously remove any claim that deviated from the experts' official line, whether or not it had concrete public-health ramifications. That's how the experts received the power to epistemically coerce, or at least – it's a hypothesis worth pursuing.

As we are move past the height of the pandemic, it seems that the Leviathan has dissolved or at least weakened. But we should not be complacent; it may return. Both in politics and in science, surrendering our rights to a Leviathan is bad idea. Science is full of uncertainties, and thrives on doubt. I have set aside internal epistemic coercion within science, which is a complicated matter; but the teaming up of science with the state to enforce one view is dangerous. Sometimes the best we have to act on is experts' best guesses. It may not be much, but that's what we've always had, including during the pandemic.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 77–81
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 77–81
DOI: https://doi.org/10.5840/eps202461342

CENSORSHIP AND DISCOURSE: ATOMS, BITS, & BODIES

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Epistemic coercion is a *problem* – something we need to do as well as something we need to avoid or resist. Epistemic coercion is a *superficial* problem – in two senses: First: we, or "they", cannot actually control discourse except by controlling speakers and writers, which means that nobody can actually be stopped from saying what they will up until the moment they are sanctioned or cancelled. Second, through epistemic coercion we control the surfaces and motions of bodies we discipline and mobilize. We can inscribe bodies but cannot conjure them into flesh from words alone – at least until our nanotechnologists can assemble atoms into life.

Keywords: censorship, power, peer review, resistance, mobilization

ЦЕНЗУРА И ДИСКУРС: АТОМЫ, БИТЫ И ТЕЛА

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Проблема эпистемического принуждения относится к тому, что мы должны нечто делать, а также к тому, что нам следует чему-то сопротивляться. Это поверхностная проблема в двух смыслах. Во-первых, мы или «они» можем контролировать дискурс только посредством контроля за теми, кто говорит и пишет. Это означает, что никому нельзя помешать говорить то, что он хочет, пока это разрешено. Во-вторых, посредством эпистемического принуждения мы контролируем поверхности и движения тел, которые мы подчиняем и мобилизуем. Мы можем оставлять знаки на телах, но не можем собрать тела из одних только слов – по крайней мере, до тех пор, пока наши нанотехнологи не научатся собирать атомы в живые организмы.

Ключевые слова: цензура, власть, экспертная оценка, сопротивление, мобилизация

What is epistemic coercion, and how is it possible? The West is administered through the US-centered "Censorship-Industrial complex," as Michael Shellenberger [Shellenberger, 2023] has called the globe-spanning assemblage of intelligence agencies and their academic and Big Tech collaborators. The censorship-industrial complex can keep us from knowing things by censorship, or by polluting our information stream with misinformation.

A possibility we consider less frequently is that one can make somebody know something he or she did not choose to know, or even something that he or she would have chosen not to know. The clear cases of this kind of epistemic coercion are cases of knowing how: a conscript learns how to be a soldier whether he or she wants to or not.

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As the example of conscription shows, the question of how to resist epistemic coercion is supplementary, and, as a political scientist I would argue really secondary, to the question of how and when to perform epistemic coercion. Feyerabend, the self-proclaimed "epistemological anarchist" [Feyerabend, 1993, p. 9] often gives the impression that we have an option to avoid all complicity in policing speech and thought, but the Wehrmacht, in which Feyerabend himself served, was defeated not by pacifists nor by nonviolent resistance but by hundreds of divisions of conscripts drafted at gunpoint to defend "The Four Freedoms" and, notwithstanding the deceit and horrors of Stalin's tyranny, the constitutional rights of Soviet citizens. Both FDR's America and Stalin's USSR claimed, with great differences in law and far greater in practice, to champion freedom of speech and of religion, and did so by coercing men to know how to fight. As Professor Turner writes, epistemic coercion is a "problem" – a ancient Greek word which etymologically means something thrown before us that we must, generally speaking, solve – that is, figure out how to do – rather than avoid.

An old idea, going back to Plato's Socrates in the *Theaetetus* (201), is that knowledge, or rather propositional knowledge or "knowledge that," is "true belief plus an account," a cognitive state of belief with the addition of a discourse correctly justifying that belief. Coercion of discourse is of course, eminently feasible and even frequent. "They," Shellenberger's censorship-industrial complex, can and do control what we read or hear and punish us for what we say or write. "They" can certainly coerce statements of belief even more easily than they can coerce belief, and do it all the time in the user agreements we click "yes" to without choice and without reflection. Because or insofar as Jefferson was correct that the beliefs of men depend on the evidence presented to their minds, "they" can control beliefs by controlling what evidence is explicitly presented and what is suppressed.

Yet note that the control of evidence is control of discursively presented evidence: the mechanism of censorship is the control of publication and occasionally, depublication. Sometimes depublication occurs as the result of evidence of plagiarism or fraud – but with regard to claims "they" disfavor, depublication is often the result of alleged "ethical violations" even though no counterevidence or substantive debunk is produced [Boseley, 2010].

Peer review is review of peers by means of review of the writings of would-be peers: to coin a phrase from Linus Pauling about the eventual Chemistry Nobelist Dan Shechtman, "*there* is *no such thing as quasi-crystals*, only quasi-scientists." Professor Turner writes above of "the efforts of scientists to censor their own colleagues for taking positions that the government opposes, out of fear for their own grants." Note the object in that sentence: it is the colleagues that are censored, not the positions. The key method of control is not censorship of discourse *per se*, but exclusion

of speakers or writers. People, it turns out, are more easily "cancelled" than expressions are censored. The Internet still "interprets censorship as damage and routes around it," but those who take or enable those unauthorized or illegal routes can be punished. To stay in the First Circle of grant recipients and the professionally licensed, you have to avoid saying or writing certain things. Moreover, unless one is remarkably fortunate in one's naiveté, those of us with careers to forfeit have to know what not to say.

Turner writes that "teen-age girls lack the experiences that lead to the tacit endowments that enable resistance." As the son of a teenage mother I am well aware that resistance can be excessive and that the fantastic naiveté of teenage girls appears to be vital for the continuation of the species. But it is not only resistance but also complicity that requires an endowment of knowledge, explicit as well as tacit.

That the mechanisms of coercion operate effectively on persons but poorly on statements has two important implications: First, because you have to know what you are not allowed to say, the whole system of policing is made possible only by the bad faith of those who implement it and those who comply. "'I wonder,' said Cato, 'that a soothsayer doesn't laugh when he sees another soothsayer'" (Cicero, *On Divination*, 2.24). Statements that must be believed but cannot be articulated cannot be put to the test: US opponents of voter ID requirements (which are pretty much universal in democratic countries), often claim that voter ID is "racist": the unspoken and unspeakable premise is that US racial minorities, in particular African Americans, do not know how to get ID's, which would be tough on US Black people who want to clear their sinuses with pseudoephedrine.

Second, if you are willing to brave the penalties – or are immune or merely oblivious to them – you cannot be kept from tasting the forbidden fruit, or even retailing it. As Kevin Bird and Jedididah Carlson [2024] regretfully note, when "articles are published outside of mainstream venues" or "by a group of researchers who lack institutional affiliations (or whose affiliation is outside of the United States), the ability to retract or sanction these researchers through usual mechanisms seems minimal." Or to take a less academic example, the "blackface" episodes of the US medical sitcom *Scrubs* have been removed from streaming services [Carras, 2020] but are still available for (illegal) download via file sharing protocols. Yet there really is harmful stuff out there when one ventures beyond the walled, curated garden of permitted content, and bad things can happen to those who wander beyond the pale, ranging from bricking one's cellphone or accidently infesting one's IT system with ransomware to starving oneself on a fruit diet to dying unmourned in custody.

What resists epistemic coercion whether we will it or not is that impersonal, seemingly unknowing thing: our bodies as we live them. Tacit knowledge is paradigmatically bodily knowledge: I suspect that when we say that something "doesn't sound right" or "violates common sense" or

"doesn't pass the smell test," these references to our bodily sensorium are not just dead metaphors. One cannot simply tell the ignorant or the innocent what sex is like, or how to ride a bicycle: this is tacit knowledge as inarticulable knowledge. Turner, however, uses the term "tacit knowledge" to include knowledge that is articulable but for which the supposed knower does not have a ready articulation. Turner writes of "examples of explicitly coerced personal experiences that generate largely inarticulable knowledge: a paradigm case would be Eisenhower's decision at the end of the Second World War to force Germans to watch films of the concentration camps by making it a condition of getting stamps to obtain food." Whatever the Germans could learn from those films could also be taught as explicit knowledge, one might think, from a book or a sufficiently articulate and vivid series of lectures about the Holocaust.

Discourse can be made without loss into images, as the former Wachowski brothers demonstrated a generation ago with *The Matrix* (1999). Discourse can be made into lived reality only by recruiting bodies and deploying them all but superficially as they are. "They," our censorship-industrial complex overlords, can control "the discourse," – or at least they can control their own discourse and that of anyone who aspires to the positions of power and privilege that they control. That discourse can as yet be inscribed on our bodily reality, the realm of tacit knowledge beyond all discourse, only superficially – a tattoo, or a vaginoplasty.

The United States Marines could, at least until recently, take boys and make them into tattooed men, but they cannot grow riflemen in computer-numerically-controlled vats. The technophiles talk about bits versus atoms, as if we knew how to assemble atoms into life. To fully transform discourse into biopower one would need to make one's code come alive, perhaps with the aid of Plato's nuptial number (*Republic* 546). "They" can force the large language models whose programmers they manage and those who wish to avoid "cancellation" to say that men can have babies, but "they" can't actually make men have babies… yet.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 82–92
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 82–92
DOI: https://doi.org/10.5840/eps202461343

Feyerabend's Relationship to the Liberal Art of Government: Comments on Stephen Turner on Free Exchange and Collective Decision-Making

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This paper challenges Stephen Turner's reading of Feyerabend's *Science in a Free Society*. In particular, according to Turner, Feyerabend's "critique represents a recognition that the regimes of science and expertise are ineradicably political and coercive. But if regimes of science and expertise are ineradicably political and coercive, what remains is the problem of our choice of regimes, and how to accommodate them in a democratic order." This paper shows that by stretching the meaning of coercion so widely, Turner has misrepresented Feyerabend's position. In fact, the paper argues that Feyerabend offers a vision of liberal politics and science that can be made uncoercive, or at least worth having. In particular, this paper offers a new reading of Feyerabend's account of 'free exchange' as an immanent critique of J.S. Mill's liberalism. The paper concludes by diagnosing some tensions in Feyerabend's vision and thereby also criticize Turner.

Keywords: Feyerabend, J.S. Mill, political transformative experience, liberal art of government, witnessing truth, philosophy of science, open exchange

Отношение Фейерабенда к либеральному искусству управления: комментарии по поводу свободного обмена и коллективного принятия решений у Стивена Тернера

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В этой статье ставится под сомнение интерпретация, предложенная С. Тернером в отношении книги Фейерабенда «Наука в свободном обществе». В частности, по словам Тернера, «критика Фейерабенда представляет собой признание того, что режимы науки и экспертизы неискоренимо политизированы и принудительны. Но если режимы науки и экспертизы неискоренимо политизированы и принудительны, то нам остается проблема выбора режимов и приспособления их к демократическому порядку». В этой статье показано, что, трактуя значение принуждения настолько широко, Тернер исказил позицию Фейерабенда. В статье утверждается, что Фейерабенд предлагает точку зрения на либеральную политику

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Фейерабенда о «свободном обмене» как имманентной критики либерализма Дж.С. Милля. В заключение статья выявляет некоторые противоречия в концепции Фейерабенда и посредством этого обращает критику также на Тернера.

Ключевые слова: Фейерабенд, Дж.С. Милль, опыт политических преобразований, либеральное искусство управления, свидетельство истины, философия науки, открытый обмен

In his erudite essay, Stephen Turner invites us to use Feyerabend to reflect on the "distinctive coercive power of the new technology of digital world." I admire Turner's treatment of the way 'disinformation' itself has become a "novel form of coercion, based on a novel form of authority over what is treated as true." He is right to suggest that the very idea presupposes an ideal theory deviation from whose elements "is taken to be a source of error." Turner and I *agree* that our epistemic environment is always populated by strategic actors (including ourselves) constituted, in part, by differential power relations [Schliesser, 2022].[1]

Turner draws repeatedly on Feyerabend's *Science in a Free Society* [Feyerabend, 1982]. In particular, according to Turner, Feyerabend's "critique represents a recognition that the regimes of science and expertise are ineradicably political and coercive. But if regimes of science and expertise are ineradicably political and coercive, what remains is the problem of our choice of regimes, and how to accommodate them in a democratic order."

I argue that by stretching the meaning of coercion so widely, Turner has misrepresented Feyerabend's position. In fact, I show that Feyerabend offers a vision of liberal politics and science that can be made uncoercive, or at least worth having. And while I note some tensions in Feyerabend's position, I use it to criticize Turner's argument.

In *Against Method*, Feyerabend repeatedly draws on Mill often explicitly quoting *On Liberty* and Mill's *Autobiography*.[2] At one point, Feyerabend also exhibits familiarity with Mill's *System of Logic* [Feyerabend, 1993, p. 260, note 8]. Feyerabend summarizes the initial key takehome message of his treatment of Mill as follows, "pluralism of ideas and forms of life is an essential part of any rational inquiry concerning the nature of things" ([Ibid., p. 31]; see also the reiteration at the end of the chapter on p. 38.) Let's call this the 'pro-Mill reading.'

The repeated references to and apparent centrality of Mill in Feyerabend's works has generated something of a specialist literature both using Mill's *On Liberty* to interpret Feyerabend as well as trying to estab-

[1] I have a very similar diagnoses [Schliesser, 2022].

[2] *Against Method* was first published in 1975. I am quoting from the third edition, published in 1993 London: Verso. Mill also figures indirectly in a memorable footnote, "There is no Harriet Taylor in Popper's life" [Feyerabend, 1993, p. 34, note 2].

lish, how exactly, Feyerabend's use of *On Liberty* can be reconciled with Mill's account of science in *System of Logic*.[3]

What's peculiar about the quoted passage from *Against Method* is that it seems that pluralism of ideas and – echoes of Wittgenstein – forms of life are treated as ingredients in and so as a *means* toward rational inquiry. To put this in quasi-Kantian terms, this seems to make practical knowledge subservient to theoretical knowledge. Or to put it differently again, the justification for (let's stipulate) our good ways of living appears to be the advance of knowledge. There is something decidedly anti-humanistic about this stance. It's an open question to what degree this is Mill's position, but it would be surprising if it were Feyerabend's all things considered view.

Let me rephrase the point of the previous paragraph. If we take the treatment of Mill by Feyerabend at face value as Feyerabend's own considered view, it would seems to treat political life as subservient to or a subset of scientific life. This is at odds with Feyerabend's wider program, as Turner discerns, of what we may call disestablishing science from its political pre-eminence and epistemic monopoly position in society.

In fact, upon closer inspection, Feyerabend is *also* a fierce critic of Mill. In order to illustrate this and also develop my wider argument, I quote a passage that appears in *Against Method* and (with minor modifications) in *Science in a Free Society*:

> There are therefore at least two different ways of collectively deciding an issue which I shall call a guided exchange and an open exchange respectively.
> In the first case some or all participants adopt a well-specified tradition and accept only those responses that correspond to its standards. If one party has not yet become a participant of the chosen tradition he will be badgered, persuaded, 'educated' until he does and then the exchange begins. Education is separated from decisive debates, it occurs at an early stage and guarantees that the grown-ups will behave properly. A rational debate is a special case of a guided exchange. If the participants are rationalists then all is well and the debate can start right away. If only some participants are rationalists and if they have power (an important consideration!) then they will not take their collaborators seriously until they have also become rationalists: a society based on rationality is not entirely free; one has to play the game of the intellectuals.
> An open exchange, on the other hand, is guided by a pragmatic philosophy. The tradition adopted by the parties is unspecified in the beginning and develops as the exchange proceeds. The participants get immersed

[3] See, for example, Lloyd, Elisabeth A. "Feyerabend, Mill, and pluralism." *Philosophy of Science* 64.S4 [Lloyd, 1997]: S396–S407; Staley, Kent W. "Logic, liberty, and anarchy: Mill and Feyerabend on scientific method." *The Social Science Journal* 36.4 [Staley, 1999, pp. 603–614; Struan, 2003, pp. 201–212].

> into each other's ways of thinking, feeling, perceiving to such an extent that their ideas, perceptions, world-views may be entirely changed – they become different people participating in a new and different tradition. An open exchange respects the partner whether he is an individual or an entire culture, while a rational exchange promises respect only within the framework of a rational debate. An open exchange has no organon though it may invent one, there is no logic though new forms of logic may emerge in its course [Feyerabend, 1993, pp. 227–228] (see also [Feyerabend, 1982, p. 29] which omits the next paragraph which starts with "An open exchange establishes connections between different traditions and transcends the relativism [of points iii and iv]…").

I offer eight observations on this passage. First, Feyerabend has moved from philosophy of science to political theory here. We are in the realm of *all* collective decision making. Scientific decision making is merely a subset of wider decision-making. So, second, this reverses the impression one gets from the pro-Mill reading of *Against Method*.

Third, before we misunderstand Feyerabend, he is clearly using the two kinds of decision making as Weberian ideal types. In practice, there is a lot more diversity within them and features of the ideal types can be mixed.

Fourth, and crucially, while contemporary readers may assume that something like Habermas' account of deliberative democracy – one of Turner's targets – is also Feyerabend's intended target (as the exemplar of guided exchange), Feyerabend's *actual* target is Mill! Feyerabend's note 10 reads: "'It is perhaps hardly necessary to say', says John Stuart Mill, 'that this doctrine (pluralism of ideas and institutions) is meant to apply only to human beings in the 'maturity of their faculties' – i.e. to fellow intellectuals and their pupils. 'On Liberty.'" (In *Science in a Free Society* note 10 is note 14 on p. 29. [Ibid.]) Thus, Feyerabend sees Mill as *the* advocate of guided exchange.

Feyerabend seems to have been unfamiliar with Maurice Cowling's [Cowling, 1963] *Mill and Liberalism*, which drawing on such passages and especially Mill's *System of Logic*, treats Mill (quite plausibly), as advocate of technocracy and epistemocracy. As an aside, that's to say, the way to reconcile *On Liberty* and Mill's *Logic* hinges on the political philosophy common to both not through the scattered remarks on philosophy of science in *On Liberty*. In fact, in wider context of Feyerabend's argument it's also quite clear that Feyerabend is picking up on the cultural superiority that Mill exhibits about which peoples have such maturity [Pitts, 2005, pp. 133–164].

This last point is central in the material in *Science in a Free Society* that goes beyond the argument of *Against Method*, and simultaneously reveals Feyerabend's reliance on and use of Millian assumptions. At one point, in responding to Agassi, Feyerabend writes:

> The effect is that scientists and 'liberal' rationalists have created one of the most unfortunate embarrassments of democracy. Democracies as conceived by liberals are always embarrassed by their joint commitment to 'rationality' – and this today means mostly: science – and the freedom of thought and association. Their way out of the embarrassment is an abrogation of democratic principles where they matter most: in the domain of education. Freedom of thought, it is said, is OK for grownups who have already been trained to 'think rationally'. It cannot be granted to every and any member of society and especially the educational institutions must be run in accordance with rational principles. In school one must learn what is the case and that means: Western oriented history, Western oriented cosmology, i.e. science. Thus democracy as conceived by its present intellectual champions will never permit the complete survival of special cultures. A liberal-rational democracy cannot contain a Hopi culture in the full sense of the word. It cannot contain a black culture in the full sense of the word. It cannot contain a Jewish culture in the full sense of the word. It can contain these cultures only as secondary grafts on a basic structure that is constituted by an unholy alliance between science, rationalism, and capitalism. This is how a small gang of so-called 'humanitarians' has succeeded in shaping society in their image and in weeding out almost all earlier forms of life. [Feyerabend, 1982, pp. 135–136]

Here Feyerabend relies on Millian assumptions in order to reveal a deep tension within contemporary accounts of liberal democracy.[4] I have three things in mind: (i) Feyerabend stipulates a kind of stadial conception of human cultures. The special cultures are "earlier formers of life." And (ii) the essentialism applied to whole cultures. Finally, the idea that (iii) only the grownups (members of a particular culture, and within them those that have special intellectual status) can really participate in political life. In the passage, Feyerabend clearly rejects (iii). I doubt Feyerabend accepts (i) and (ii) because his normative account of 'open exchange' implies, as noted above, that such essentialism is wholly inadequate normatively as a treatment of culture and individuals (which, as I show below, are intrinsically hybrids). In fact, Feyerabend is explicit that he treats Mill's liberalism as "the first" and not final "step in the direction" of a "more mature world." [Ibid., pp. 132–133] So, Feyerabend rejects the pro-Mill reading, even though he treats Mill as a partial anticipation of his own program.

In addition throughout, from the perspective of political decision-making, Feyerabend treats scientists and their intellectual champions as rent-seekers (viz. his 'capitalism'), who use their privileged access to state violence to silence others. This violence is, as Turner correctly

[4] In the section, "A Guide for the Perplexed," in the chapter titled, "Marxist Fairytales from Australia," Feyerabend explains his fondness for immanent critique [Feyerabend, 1982, pp. 156–163].

implies, initiated with *mandatory* early education. By contrast, Feyerabend's own position is that all individuals and the collectivities that they form part of have the *liberty* to turn their backs on science and may well be carriers of traditions of knowledge very much worth preserving (his favorite example is Chinese medicine). He views the "United States" of his time as "very close to a cultural laboratory… where different forms of life are developed and different modes of human existence tested." [Feyerabend, 1982, p. 133] What prevents Americans from achieving their full potential are the restrictions found in the "*brains* of human *beings*; they are not found in the *constitution*." (Emphases in original. [Ibid.]) This last passage is surprisingly Kantian. For Feyerabend, we suffer fundamentally from a self-imposed tutelage.

Lurking here is a more radical understanding of freedom. For, fifth, in 'open exchange' something like transformative experience (in L.A. Paul's sense) [Paul, 2014] occurs: "they become *different people* participating in a new and different tradition" (emphasis added.) The significance of this for political ontology is rather far-reaching. Open exchange is a process of *intense* hybridization – all sides end up radically altered. After hybridization new "modes of human existence" come into being.

In 'open exchange,' Feyerabend predicts what we may call the possibility of 'political transformative experience (hereafter: PTE), which involves a social experience that is epistemically and politically transformative. PTE arises in situations where collective agents are conditioned by cognitive and epistemic limitations; thus PTE is – like Laurie Paul's account of transformative experience on which it is explicitly modeled – a species of epistemic (subjective) true or ***Knightian*** uncertainty. In particular, PTE is a theory of unforeseen (and, thus, unintended) consequences in which those consequences change political actors in ways they could not have willed, or expected. PTE assumes the intelligibility of collective agents (and collective intentionality) without taking a stance on the ontology of such agents.

Be that as it may, Turner treats Feyerabend's account of the coercive nature of science as a kind of (partial) anticipation of recent interest in testimonial injustice. In particular, according to Turner, for Feyerabend "the role of epistemic coercion in science and in society in general was intrinsic and ineliminable." This interpretation of Feyerabend makes sense because Feyerabend has a tendency to treat contemporary science as taking on the same functional and authoritative role in witnessing truth as the Church once had. Of course, Feyerabend is a critic of such roles for science.

But the claim that epistemic coercion is intrinsic to science and society is too strong when offered as an interpretation of Feyerabend. After all one of the theses Feyerabend wishes to defend is: (VIII) "…*a free society will not be imposed but will emerge only where people solving particular problems in a spirit of collaboration introduce protective*

structures of the kind alluded to. Citizen initiatives on a small scale, collaboration between nations on a large scale are the developments I have in mind." ([Feyerabend, 1982, p. 30] emphasis in original)

So, regardless whether epistemic coercion is ineliminable in science, a considerable form of epistemic non-coercion seems possible in a free society according to Feyerabend. That's compatible, of course, with some forms of epistemic coercion being necessary even in, say, the education of a free society.

Before I continue, it is worth noting how echt-liberal Feyerabend is in (VIII). At least from (1952) *The Sensory Order* onward, emergence plays a crucial role in the thought of (say) Hayek [Lewis, 2012, pp. 368–347].[5] And Hayek, too, was enamored of voluntary interstate federalism and, while critical of majoritarianism, not adverse to citizen initiatives [DiZerega, 1989, pp. 206–240]. They both exhibit a fondness for allowing traditions to develop on their own terms. To be sure, I don't mean to suggest that Feyerabend is Hayekian liberal – Feyerabend is not interested in defending commercial society and Fayerabend is fond of a strain of *direct* democracy – "A democracy is an assembly of mature people and not a collection of sheep guided by small clique of know-it-alls" [Feyerabend, 1982, p. 87] – that Hayek has always been mistrustful of. One may well wonder how non-coercive society is even possible on Feyerabend's own view.

Sixth, back in 2016, Martin Kusch, when commenting on this material, also must have discerned the affinity with liberalism because he writes "[t]his idea of "open exchange" is of course closely related to the idea of Tolerance." By 'tolerance' Kusch means something like the willingness not to eliminate or to endure "epistemic systems or practices other than one's own." [Kusch, 2016, pp. 106–113]

By contrast, while I agree that something like such tolerance is, under some conditions, a necessary condition for the initial possibility of open exchange, it has a very different spirit. Toleration involves an attitude taken by a majority toward a minority. It is then very much treated as a privilege extended by the former, understanding itself as a physically and morally superior majority, toward the later. That is, the very idea of toleration also presupposes that such a privilege can be revoked at the majority's discretion. In fact, toleration is a bad way to conceive the self-understanding of liberalism. Rather, as conservatives and post-liberals discern (and hate), liberalism's trust in the pursuit of meaningful choice by individuals and associations of individuals creates the conditions of the permanent possibility of new identity formations that cut across existing social groups and risks altering pre-existing affective ties.

[5] Feyerabend knew Hayek personally, but there is no reason to believe they took each other very seriously, and undoubtedly there are common sources of influence in Viennese psychology.

One of the means to get there is, as Fayerabend explicitly recognizes, open exchange.

Seventh, in a recent paper, Jamie Shaw suggests that "In open exchanges, Feyerabend is picturing representatives of different traditions having on-going discussions in good faith who actively seek to understand other traditions and, possibly, revise their own beliefs as a result." [Shaw, 2021, pp. 419–449] This is largely correct. But I don't see much textual evidence for the idea that for Feyerabend open exchange involves *representatives* of different traditions.[6]

I don't mean to suggest that it is impossible to treat Feyerabend as relying implicitly on a notion of representation or representatives of different traditions. After, all it is difficult to imagine "collaboration between nations" without some kind of representatives in a mass society. And it is not entirely obvious how one can listen to an "entire culture" if the culture is not mediated by some kind of representative.

However, Shaw's reading of Feyerabend nudges Feyerabend toward a 'pillars model' of deliberation as articulated and made famous in (say) Arend Lijphart's treatment of Dutch politics, *The Politics of Accommodation*. The problem with emphasizing representation here is that it risks a structural disconnect between the immersive and in-principle-transformative experiences of elites (who represent) from the experience of ordinary members of a tradition who are not part of the exchange and how go on with their lives unaware of the hybridization happening elsewhere on their behalf. That would involve replacing one kind of tutelage for another.

Eight, one crucial feature of Feyerabend's conception of free exchange is that he views social decision-making as itself a mechanism of tradition formation: (to repeat) "The tradition adopted by the parties is unspecified in the beginning and develops as the exchange goes along." That is to say, Feyerabend's approach to collective decision-making, where hybridization or political transformative experiences are possible, is decidedly forward-looking. This is in marked contrast to what happens within existing traditions which curate or invent/revive their own past on an ongoing basis (and, on Feyerabend's view) should always have freedom to do so even if this involves quite heavy-handed forms of culturation. But Feyerabend seems to draw a sharp contrast between state sponsored coercion and the non-state forms of coercion needed to maintain a cultural form of life.

[6] In Shaw's paper this seems derived from Jasanoff's account of the use of public reason. Shaw seems to treat Feyerabend's version of the all-affected principle – "problems are solved and solutions are judged by those who suffer from the problems and have to live with the solutions" – as evidence for the claim about representation. He also seems to conflate Feyerabend's advocacy of direct democracy with representation.

In fact, Feyerabend seems to treat cultural traditions as richly embedded voluntary associations that may well impose some coercion on its members (as long as exit from such tradition is guaranteed). Recall Feyerabend's emphasis on "freedom of thought *and* association" (emphasis added). In many ways Feyerabend anticipated the liberal project that Chandran Kukathas defended in his *The Liberal Archipelago: A Theory of Diversity and Freedom* [Kukathas, 2003]. This is a way to create a broad liberal framework in which many different kinds of experiments of living are possible.

If I understand the gist of Feyerabend's project correctly then he would treat participation in the sciences as itself a form of life worth having as long as it is severed from the state apparatus as a source of rents and the state's coercive capacity to impose science as the pre-eminent cultural tradition over and beyond other traditions. Obviously, this would have radical implications for the nature of science funding in our society. I suspect such a change would be quite salutary for the development of the sciences. But it would also require a rethinking of the many ways in which science is intertwined with the state in the liberal art of government.

In fact, the earliest liberals (Adam Smith, Humboldt, Bentham, Constant, etc.) all explicitly noted that support of science is a major exception to their *laissez faire* preference (See, for example [Bentham's, 2008]. The state presupposes scientific (and technological) know-how, and also promotes a wider program of scientific development.

These features are visible in the US Constitution, which (as we have seen) Feyerabend claims to admire. Article 1, section 8, states: "To coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures; To provide for the punishment of counterfeiting the securities and current coin of the United States… To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." On this view of the liberal art of government, the state itself witnesses truth based on technical and scientific expertise (fixing standards, securing uniform coinage, etc.) and grants patents and property rights to scientists and inventors (etc.). The reasons for this are manifold.

I grant that Feyerabend wishes to remove the state's role in witnessing truth altogether. (That's compatible with allowing the state to continue to be a machinery of record.) I have some sympathy with Feyerabend's view; we should reject, where possible, the idea that the state should be in the business of constituting the truth, especially where this is subject to political controversy. This rejection is driven by the realization that no compromise is possible on truth; something is either true or false. The politics of truth only generates, like class warfare, winners and losers. The great achievement of turning the state's back on religion, for example, is to avoid having the state arbiter a number of theological conflicts without possible opportunities to compromise. To what degree it is

wholly desirable to keep the state out of witnessing truth is, I think, an open question. Let me explain.

It's worth stressing that Feyerabend is not a science abolitionist. In the passage immediately following his diagnosis of our self-imposed tutelage, he adds that it "can be removed by propaganda, enlightenment, special bills, personal effort (Ralph Nader!) and numerous other legal means." [Feyerabend, 1982, p. 133] I view the inclusion of enlightenment as evidence that Feyerabend thought that science may also be a *means* to liberate our minds, or to resist distinctive coercive power of the new technology of digital world. That entails a significant correction to Turner's approach.

I suspect the source of the disconnect between Feyerabend and Turner is that Turner misunderstands the nature of what he calls 'epistemic autonomy' in the liberal tradition. He treats this as centered on "the individual as thinking and valuing." Turner is correct that in this tradition "the individual thinker is her own final "authority." But it doesn't follow that the liberal tradition leaves the individual thinker as an isolated atom "vulnerable" without socially embedded intellectual resources. For example, liberals assume that individuals can draw on authoritative sources of belief that they acquire through a whole range of institutions: e.g., a free press, unions, or business associations, consumer protection groups, churches, and scientific organizations. These institutions provide us with *authoritated* beliefs, we accept those based on a trusted authority. In liberal theory, institutional pluralism is not just a social fact, but it is also a source of resistance toward hegemonic thought. (This is why liberals recurrently turn to federalism, too.) Feyerabend's own repeated emphasis on social pluralism recognizes the virtues of this.

None of these institutions need to be infallible or perfectly public spirited. What's required is that they are a system of countervailing powers that can provide trustworthy and reliable cues and proxies for what and whom to belief. A well-functioning state may also be a trustworthy witness to the truth. Given that the state is itself an extensive machinery of record that reliably tracks births, deaths, property-deeds, etc. it can also witness truth. This explains why the complete decoupling of science and the state is unlikely; the state's capacity as a machinery of record and a witness to truth often presupposes non-trivial scientific expertise.

In so far as there are new sophisticated forms of epistemic coercion then we will also need sophisticated countervailing powers. [Bagg, 2023] There are hints of this in Turner's argument when he emphasizes the significance of neutral procedures of justice. But Turner does not avail himself of the full range of possible sources of a pluralist society. He is simply wrong about the fact that we are "most vulnerable where we have little tacit background that enables us to resist;" rather we are most vulnerable when have no idea who and whom to turn to for assistance in our resistance.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 93–104
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 93–104
DOI: https://doi.org/10.5840/eps202461344

TACIT COERCION: A REPLY

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In this reply to comments by Schliesser, Kochin, Kositna, Sassower, Miller, and Eyal and Sheremet, the underlying thesis of "Epistemic Coercion" is elaborated and explained. Epistemic Coercion is often thought to be impossible: no one can coerce belief. This is the thesis of epistemic voluntarism. But the techniques and responses the paper addressed were different: they were attempts to alter the epistemic environment. And this relates to the tacit. Voluntarism does not hold for the tacit, which is to say, that which is produced by experience and by prior cognitive predispositions. The experiences of the digital world are subject to manipulation, and the manipulators can themselves be coerced. In this way a person's tacit sense of what is normal or acceptable can be manipulated. But the same sense can be the basis of rejection of claims made in the name of expert authority. One difference between overt coercion and tacit manipulation is that the manipulation of epistemically relevant experience, through such means as algorithms governing social media content, is hidden from recipient, and more difficult to resist. But its effects are indirect, for example, in facilitating acceptance as normal. These effects are bound up with persuasion and acceptance generally, so this kind of manipulation represents an exercise of hidden power.

Keywords: tacit knowledge, epistemic coercion, expertise, censorship, power

НЕЯВНОЕ ПРИНУЖДЕНИЕ: ОТВЕТ ОППОНЕНТАМ

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В ответе на комментарии Шлиссера, Кочина, Костиной, Сассоуэра, Миллера, Эйала и Шеремет разъясняется основной тезис статьи «Эпистемическое принуждение». Эпистемическое принуждение часто считается невозможным: никто не может принудить к убеждению. Таков тезис эпистемического волюнтаризма. Но в статье рассмотрена иная точка зрения: она принимает во внимание попытки изменить эпистемическую среду, что связано с неявным знанием. Волюнтаризм не действует в отношении неявного знания, которое формируется на основании опыта и когнитивных предрасположенностей. Опыт в цифровом мире подвержен манипуляциям, и сами манипуляторы могут быть подвергнуты принуждению. Таким образом, неявное восприятие человеком нормальности или приемлемости может быть изменено. Но такое восприятие может служить и основой для несогласия с утверждениями, сделанными от имени экспертов. Разница между открытым принуждением и неявным манипулированием заключается в том, что манипулирование эпистемически значимым опытом с помощью таких средств, как алгоритмы, управляющие содержанием социальных медиа, скрыто от получателя, и ему

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труднее противостоять. Оно косвенно воздействует на получателя, манипулируя когнитивными предрасположенностями к убеждениям и действуя как скрытая власть.

Ключевые слова: неявное знание, эпистемическое принуждение, экспертиза, цензура, власть

Thanks to the contributors for their useful, and varied, responses. The sheer range of the discussion is a good indication of the richness of the topic, and its future. I hope I can clarify my point in this reply. My main concern was to identify some forms of epistemic coercion and resistance to it, and to undermine the idea of epistemic voluntarism. I was not concerned to argue against epistemic coercion, but rather to note its ubiquity, and that science was not exempt, but I was concerned with the epistemic environment and how it could be transformed by these methods, and how they could be resisted. I noted that this was a concern of long-standing, associated with novel information technologies. The current information regime had made it an especially salient topic. Social media and search engines have been subject to coercive control, handwringing by intellectuals, and a demand for more control by the supposed advocates of democracy and enlightenment.

The paper was critical of two viewpoints: the "liberal" one in which each person is the master of their epistemic universe, and the "common good" one, which justifies imposing epistemic order. My aim was to identify forms of both coercion and resistance. As I wrote "Neither of these conceptions is quite satisfactory, and none of them fit the pattern of coercion and resistance outlined here: coercion falls on the clever as well as the stupid, and epistemic autonomy is a myth." But in addition, I was focused on identifying novel forms of epistemic control and the ultimate basis of resistance to them. But there is an issue here that is worth discussing: if coercion is an intrinsic and ineliminable part of the knowledge process, what can be said about the regime under which it is conducted? I will return to this at the end.

My larger point was that some important forms of coercion were not recognized as such, or were ignored. And that some forms or response were not understood as resistance to these forms of coercion. I did not treat the topic as a policy topic, which is to say one for which I had a policy conclusion, such as pluralism, as a remedy for coercion, or a means of eliminating coercion. My point was that coercion was intrinsic to a variety of common epistemic situations, including science, and indeed to epistemic experience in its full social complexity itself. In this respect I was agreeing with Feyerabend. I did not endorse or discuss his own not always consistent policy response to it, which would require a different kind of paper. Nor did I endorse nihilism, postmodernism, radical epistemic individualism, and so forth. Indeed, the argument eliminates hope for escaping coercion through some sort of cerebral hygiene. Nor is

there an institutional "solution." My conclusion will be one I have argued for in other places: that any epistemic system or form of knowledge organization has its trade-offs, often involving conflicting cognitive values [Turner, 2023a], limits, and proneness to what are, even on its own terms, "errors" or as I called them following Charles Perrow, "normal accidents" [Turner, 2010]. But one can see why pointing out the features of ordinary science and fact-making include coercive elements would lead one to think that I was celebrating a kind of radical personal epistemic autonomy, despite my denials. But this missed the point. I identified strategies used in intellectual conflict, not epistemic guarantors. The analysis could just as well have been applied to the Inquisition, the Reformation, and the Counter-reformation.

The key background idea of the paper was the idea that there were two sides to epistemic experiences: the overt side of assertion and the tacit side of experiences, or tacit knowledge, that made overt claims believable or less than believable. I didn't regard this as controversial, or at least worth elaborating in this paper. Nor do I regard the fact that tacit knowledge is individualized, or as Michael Polanyi titled his magnum opus, *Personal Knowledge* [Polanyi, 1958]. But it does conflict with a doctrine which is called "epistemic voluntarism," which essentially claims that there can be no such thing as coercion with respect to belief. For the voluntarist, one is responsible for acceptance or adherence to one's beliefs, and believing is assimilated to the commonsense model of action, where to believe is to make a choice to believe. This doctrine hinges on definitions of such things as knowledge and belief, and excludes tacit knowledge, because it is not "justified true belief," which would need to be explicit to be "justified." But it is a conventional doctrine in analytic epistemology.

Science and the Tacit

In philosophy of science things are different: not only Polanyi but Popper, Dewey, and a host of others appeal to expectations, intuitions, feelings, unease, and so forth as part of the process of intellectual change, and discovery, and these things also play a role in acceptance. Popper made a specific point about the irrational element in discovery, and about the role of expectations: "we are born with expectations; with 'knowledge' which, although not *valid a priori* is psychologically and genetically prior to all observational experience" [Popper, 1953, p. 47] and that "we stick to our expectations even when they are inadequate and we ought to accept defeat." But this dogmatism is necessary, because "if we accept defeat too easily we may prevent ourselves from finding that we were very nearly right" [Ibid., p. 49]. The "dogmatism" was based

on these tacit expectations: necessary, partial, but revisable. The scare quotes around the term "knowledge" reflect an important point about the tacit: when we use terms like this, including dogmatism but also belief, expectation, presupposition, assumption, values, intuitions, and so forth to describe the tacit we are using them analogically to describe the psychological and genetic.

This line of argument is connected to many other thinkers: the appeal to intuition in Bergson, which influenced many people in the nineteen-twenties, including Frank Knight, and beyond that to the opponents of neo-Kantianism, such as the *Lebensphilosophie* tradition, and one could add a long list of others. I alluded to this by citing Gerd Gigerenzer's reference to gut feelings [Gigerenzer, 2007], Elsewhere he points to the psychology/logic distinction [Gigerenzer, 1998] which applies to decision theory and other model forms of rationality, and to the difficulties of modelling psychological rationality. But a more crucial aspect of this vast line of thought points to the issue of the relation between language and experience and the idea that language, like Kantian categories, comes before and determines experience. There is a qualification to be made here, however. A conventional way of thinking about the tacit derives from neo-Kantianism and treats what is needed for communication, understanding and so forth as "assumptions," presuppositions, and so on. And a later version of this reduced these to discursive conditions. When Foucault said "we are all neo-Kantians now" he was reflecting this evolution of terms. But it also reflected the inappropriate concretization of terms used analogically, like presupposition, as though they were accessible facts: a core idea of neo-Kantianism. The paper rejected this and used the concept of a tacit endowment as shorthand for the tacit conditions of thought generally.

The reduction of the tacit to language or discourse in Foucault had the effect of de-individualizing the tacit, making it something shared, and treated the topic of thought as derivative of language or the discursive. The issue here is a bit confusing, because the tacit and the explicit are interwoven in practice: there are terms that are used, but what they mean to the users is partly tacit and individualized or variable at the tacit level. I have written extensively on the tacit [Turner, 2002; 2014a; 2014b; 2020; 2023b; 2024] and these topics from various angles. I did not recapitulate all these arguments, and merely mentioned Gigerenzer's remarks on "gut feelings" as a marker for the tacit. But it is a good marker: scientists do in fact refer to the "in your guts test."

The innovation of the paper was not to invent a new account of the tacit but to assert that the tacit side was important both to resistance and to acceptance, and that it was also the side that was most subject to unnoticed epistemic coercion. Lots of things, I would claim, are tacit, cases where "we know more than we can say," as the Polanyian slogan has it. Some of these are the product of learning in the wild, so to speak.

The novelty of the new world of social media and digital communication is that experience can be "curated" [Turner, 2022]. As Michael Kochin notes, this is very much a live issue: "The censorship-industrial complex can keep us from knowing things by censorship, or by polluting our information stream with misinformation." Much of my text reflected this new reality, but my concern was with the tacit effects. Ironically, given Gil Eyal and Elizaveta Sheremet's comments on algorithms, tacit learning and its limitations are close kin to that of algorithms, and subject to the same kinds of manipulation.

Some of the tacit learning is the product of what I call coercion: they are intended alterations to the tacit endowments of others through the non-transparent manipulation of the cognitive environment. But as the language issue indicates, there is not a sharp line between explicit and tacit in terms of content. There is a tacit component to much of what is "explicit": an element of interpretation based on what one knows tacitly. My concern was elsewhere. But I would add that personal experience, which also has a tacit component, has an outsize role in epistemic acceptance and rejection, especially in relation to expert knowledge claims. And this means that our tacit background is especially important in relation to them, whether we are ourselves experts employing our tacit knowledge or non-experts employing our own.

The idea of epistemic voluntarism is more plausible with overt claims: we agree to accept them. But we are not sovereigns of our epistemic world. *Why* we are inclined to agree or disagree, to accept or reject, is another matter: that depends on what I call our tacit endowment. Voluntarism doesn't apply to experience. We do not, to put it in the crudest terms, control how our neurons wire and rewire in response to experiential inputs. But these are the bases of our tacit capacities. There is a sense, which Raphael Sassower makes much of, that this leads to a kind of individualism: the connectome, the set of connections that are the neural basis of thought, that results from inputs, is individualized. But it is not free from social inputs, meaning learning from others, and indeed one could not imagine a knowing subject that was not heavily dependent on social learning from birth or before. Moreover, this is a raw fact about human cognition, not a normative claim.

Manipulating the Tacit

The responses to the paper cover a vast range of considerations: ethical, epistemological, metaphysical, political, and even legal, in that coercion is a term of legal art. A good place to begin is Boaz Miller's invocation of Hobbes and the Leviathan, which gives us a start on thinking about the knowledge system as a regime. Carl Schmitt gives a nicely epistemic

description of the origins of the state: "the terror of the state of nature drives anguished individuals to come together; their fear rises to an extreme; a spark of reason (*ratio*) flashes, and suddenly there stands in front of them a new God" [Schmitt, 2008, p. 31] and "a consensus emerges about the necessity to submit to the strongest power" [Ibid., p. 33]. Sassower's picture of the absurdity and folly of the individual with his or her meagre epistemic base facing off against the scientific establishment with its deep roots in the scientific process captures this nicely: the fear rising to an extreme is the fear of life-threatening error, for example, over a vaccine. The solution is submission to the new God. This is in fact the situation which the manipulators of the cognitive environment wish to produce.

But the scientific Leviathan is a complex creature. On the one hand, people within it are nominally "free," and free to believe what they want to believe. On the other, it is a system rife with coercive mechanisms, exclusions, rejections, and so forth. Many of these mechanisms are indirect. The coercive aspects can be concealed under notions of quality, peer judgement, and so forth, so they seem "legitimate." But to participate in them involves a high level of acceptance of the system and conformity, which is largely internalized. We depend on our peers and the system for information, which we trust but verify, when we can, and expect others to verify. Gloria Origgi has a nice term for this, "Voluntary Epistemic Servitude" [Origgi, 2017, p. 216]. We strive to succeed and on terms we accept. We check our citation counts obsessively, but we do so voluntarily. We can leave. So where is the coercion? No one forces us to believe anything.

This sense of voluntary servitude extends to the digital sphere and social media. There are, as Gil Eyal and Elizaveta Sheremet note, no threats in the most overt sense to the mere user, though the point of curation and the reality of social media systems is that threats to be restricted, banned, shadow banned, or excluded are the norm: many people have received hundreds of these before being banned. And the government advises the companies involved what to exclude, which they do voluntarily. This is what a curated world looks like. We are not forced to participate. We can shut our screens and log off. The situation of the state of nature is that when we submit to the strongest power we are compelled to do so and do so without knowing what the consequences are. The key to curation is that it is invisible to the user and even largely to the curator, if the curation, or control of content, is done by an algorithm. As A. Kositna points out, not only is it not transparent, it is itself a source of ignorance that makes the true epistemic source unidentifiable. We can keep the illusion that we are voluntary knowers, deciding on our own. But we are living in a world of manipulated experience that is novel.

Does this amount to "coercion"? We are in the Hobbesian situation in one key respect: we don't know what we have agreed to when we join

a curated system. Nor do we know the epistemic effects on us through experience as distinct from beliefs we are being persuaded to accept. One key to the legitimation of belief, found even in Schmitt's rendering of Hobbes, is the idea that there is a consensus that is protective at least in the sense that almost everyone else accepts it. In this case it is an epistemic one: it protects us from the errors that come from disagreeing with the group. But curation can create an illusion that facilitates normalization. Indeed, in Obama's original appeal for curation this was the point: to suppress information that would lead to dissensus [Turner, 2023]. This was indeed the tactic during Covid: to delegitimate some views by hiding them to create the illusion of consensus – incidentally the name of a well-known blog whose authors were subject to these methods.

Was there coercion here? As I write this the US Supreme Court is hearing arguments about one link in the chain: the role of the government in encouraging the control of online information in relation to Covid and many other matters, many of which were overtly political. The courts are trying to find the line between persuasion and coercion. A baseline for this can be taken from feminist ethics: the issue is imbalance of power. Those with power over the recipient of "persuasion" to do something are coercing, even if mildly. There need be no overt threat. Political scientists have long recognized the importance of latent power, which can be assumed to be operating in all these cases. What is important is intent. And the intent in the case of curation is to alter the experiences of individuals in social media in such a way that the experience conforms to and validates the overt claims, such as the claim of consensus.

Agreement may be "voluntary." But the path of experience is not voluntary: the content of experience has been manipulated for the purpose of assuring that the overt claims, and the ideology, do not conflict with the experience, and therefore with the tacit predispositions to accept or reject that experiences produce. And this kind of conflict, as noted above, is the psychological basis of non-acceptance. Is this a novel form of coercion, based on a novel form of authority over what is treated by recipients as statistically normal? In law, what is accomplished by indirect means, such as through an intermediary or a mechanical device, is as unlawful as that which is prohibited to accomplish directly. This seems analogous. But in any case, from the point of view of political theory, the question is not the ethical-legal one of defining coercion, but a question of its effects and intended effects. If they are the same as outright coercion, and perhaps better because they incorporate the illusion of choice, they fall into the same political category.

Eric Schliesser argues that there is a "political" solution to these issues that I have ignored, and that it is more than sufficient to resolve any of the issues at hand. He has in mind reliable institutions with "countervailing powers that can provide trustworthy and reliable cues and proxies

for what and whom to belief." These would include "A well-functioning state" which is "a trustworthy witness to the truth." But he grants that if there are "new sophisticated forms of epistemic coercion then we will also need sophisticated countervailing powers." So he suggests that "the full range of possible sources of a pluralist society" will serve this purpose and that I am "simply wrong about the fact that we are 'most vulnerable where we have little tacit background that enables us to resist;' rather we are most vulnerable when have no idea who and whom to turn to for assistance in our resistance."

This is a touching statement of faith, to which I am sympathetic. But it has the effect of pushing the issues one step back to the question of where we get our ideas of whom to turn to and how to assess what we are told, which is to say who we can trust, and the step back is to the tacit: our sense of the trustworthiness of the sources. And the tolerance of the state for pluralism is hardly a given. The current push for censorship of misinformation is a response to pluralism, which is seen as dangerous if it is not controlled. Culture, which is to say the tacit, plays a large role here, often a paradoxical one. One recalls that Tocqueville regarded the Americans of his time as natural Cartesians, who wanted to decide everything for themselves. He pointed out that, ironically, this made them even more dependent on the opinions of people around them, which is to say who they have to turn to. What this suggests is that personal epistemologies are cultural or tacit, and also that turning to those around us for assistance is a resource of limited value if we are surrounded by the like-minded. But more fundamentally it points to a problem with "pluralism" in practice: it is something that itself depends on culture, on a tacit acceptance of the possibility of other people being right, on their sincerity and honesty, and a skepticism about claims, such as those of the state, to possess truth. I have written extensively on the ways in which state scientific institutions in the United States earned the trust of people, and how they did so [Turner, 1987; 2018a]. There was nothing automatic about it. This trust is provisional, learned, and easily lost.

The tacit is involved in more ways. To choose between plural options requires a capacity to choose that is based on one's tacit endowment. The individual has no platform for neutral choice between the alternatives. His or her reaction in choosing is conditioned by their tacit endowment, which is individualized, and not neutral, but also not entirely subject to conscious control. Even to understand an alternative requires tacit capacities, often substantial ones: that is one argument for just accepting the standard authorities. There are no magic decision rules for sorting out the plural options that do not involve a large tacit component. Even knowing who to "turn to for assistance in our resistance" requires a sense of who is trustworthy as a source and as a knower, and why, a sense which is personal and rooted in experience.

I think this is fundamental to the possibility of "sophisticated countervailing powers."

But pluralism also pushes the problem of coercion back a step in another way: to create a credible alternative, an alternative group – to which someone might turn – requires its own structure, which is going to be coercive in some sense, such as exclusion, within the group. The issue is genetic: if we ask how alternatives develop, we inevitably find that they involve, as Kositna usefully notes, a kind of tribalism that is deeply rooted in normal scientific practice. The pluralist world is a world of epistemic tribes. This may be "better," in the sense that it gives the outsider more choices, and therefore more closely approximates pure epistemic voluntarism, which is itself most plausible as a thesis for explicit belief. But the tacit is not subject to epistemic voluntarism: though we can control the experiences and social contacts that produce social learning, we can't control the contents or their effects on us. So, pluralism "solves" one problem but also conceals another.

The claims made on behalf of science conflict with "pluralism," in ways that bear both on the intellectual history of the topic and its present role in public life. The intellectual history is vexed and disputed: Mill never freed himself from Comte's science absolutism [Mill, 1865a; 1865b; 1867]. As Schliesser points out, Maurice Cowling [Cowling, 1990] has identified the authoritarian elements of Mill's "liberalism." Science was always exempted from Mill's pleas for tolerance. Comte himself can be claimed to have allowed for free exchange but only until the science was settled, after which there was, as he put it, no place for conscience. We have many echoes of the conflict between science absolutism and freedom in the subsequent intellectual history: Karl Pearson's call for the veneration of scientists and also of the state as a new religion come to mind – but Pearson similarly insisted that because science was a matter of consensus the society organized in this way could do without coercion [Turner, 2008; 2018b]. Even Pearson, however, acknowledged the need to suppress the recalcitrant. Pluralism in science was never on the agenda for any of these thinkers.

Michael Kochin and Boaz Miller come to terms with the political. Gil Eyal and Elizaveta Sheremet and Raphael Sassower dismiss it. For Eyal and Sheremet the sanctions involved in suppressing exchange on social media are mere instances of strategic interaction, and non-threatening – no more than the occasional ban from a social media site. The evidence is otherwise. The state – in this case the US government – is heavily invested in suppressing what it takes to be misinformation or the undefined malinformation, and the "strategic interactions" involve large imbalances of power, otherwise known as coercion. Suffice it to say that this is the subject of litigation in the US Supreme Court as we write, and the question that is being posed is this: should the state be limited in protecting people from the harms of speech that might lead them to endanger themselves.

The political question here is simple: who decides? Sassower thinks that the issue is simply one between legitimate authority, based on the "scientific method," which he thinks is possessed only by the authorities, and individuals who lack proper respect for their epistemic betters. This is a parody of actual cases of the application of science to policy, which are normally ill-structured problems [Turner, 1989] or "wicked problems" [Turner, 2018c], and the "scientific method" never solves policy questions on its own.

As Miller notes, the elephant in the room is Covid. And the relation between policy and science has not been the simple one that Sassower portrays. The political and scientific record is still being written, and documents are still being released, or in many cases still being withheld. But what we can plausibly say now is this: the policies of lockdowns and vaccinations failed, by the standards of the promises made to justify them. There was little or none of the base in "testability, repeatability, and falsification" that Sassower takes to justify the legitimacy of "scientific authority." The proponents of these policies simultaneously attempted to distort the facts about the origin of the virus, their role in it, and the lack of evidence for the policies and to suppress criticism and sound research that disagreed with them, and claimed that the science was "settled" only later to retract their claims and excuse their errors by saying "science evolves." They suppressed and delegitimated research that has proven to be correct. They were practitioners of epistemic coercion. Nor is this the first such case in the history of science, or even in relation to epidemics: indeed, the pattern is depressingly familiar. This is indeed an elephant that any discussion of these issues needs to come to terms with. And it points to the larger need to understand the processes of coercion and resistance that the paper pointed to.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 105–119
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 105–119
DOI: https://doi.org/10.5840/eps202461345

Weird fallibilism: Feyerabend, Lakatos, and justified true belief

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In the friendly dispute between the philosophers of science Paul Feyerabend and Imre Lakatos, both authors proclaim their allegiance to fallibilism: a term first coined by Charles Sanders Peirce, though often associated more strongly with Karl Popper. Yet Lakatos charges that Feyerabend's position amounts to scepticism rather than fallibilism, given that the latter accounts for theoretical change but not theoretical progress. Famously, progress for Lakatos occurs by way of a progressive research program, one that expands in scope over time, tackles an ever more challenging range of problems, and often yields surprising verifications of its theories. But fallibilism is cheap if it merely entails the truism that the scientific consensus of any given moment might turn out to be false. If we describe knowledge in terms of the ancient and still influential formula "justified true belief," there is good reason to hold that neither justification nor truth are attainable goals, and that they cannot even be approached asymptotically (as in the very different proposals of Alvin Plantinga and Martin Heidegger). Contra Lakatos this is not grounds for scepticism, but for what I term "weird fallibilism," using "weird" in a technical sense drawn from my book on the American horror writer H.P. Lovecraft. Weird fallibilism is characterized by two fundamental claims: (1) truth never corresponds to reality, and (2) objects never correspond to their own qualities, a point in direct conflict with the "bundle of qualities" theory of objects handed down from British Empiricism. On this basis, a modification of the "justified true belief" criterion for knowledge is briefly sketched.

Keywords: fallibilism, justified true belief, incommensurability, Karl Popper, Imre Lakatos, Paul Feyerabend, Thomas Kuhn, Edmund Gettier

Странный фаллибилизм: Фейерабенд, Лакатос и обоснованное истинное мнение

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В дружеском споре Пол Фейерабенд и Имре Лакатос заявляют о своей приверженности фаллибилизму. Однако Лакатос утверждает, что позиция Фейерабенда сводится скорее к скептицизму, чем к фаллибилизму, если учесть, что последний объясняет теоретические изменения, но не теоретический прогресс. Известно, что прогресс для Лакатоса осуществляется посредством развития исследовательской программы, которая со временем расширяется, включая более сложный круг проблем. Но фаллибилизм теряет ценность, если сводится к трюизму о том, что научный консенсус в любой данный момент может оказаться ложным. Если мы описываем знание в терминах все еще влиятельной формулы «обоснованное истинное убеждение», есть веские основания полагать, что ни обоснованность, ни истина не являются достижимыми

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целями и что к ним нельзя приблизиться асимптотически. Вопреки Лакатосу, это приводит не к скептицизму, а к тому, что я называю «странным фаллибилизмом», используя «странный» в техническом смысле, взятом из моей книги об американском писателе, работавшем в жанре ужасов, Г.Ф. Лавкрафте. Странный фаллибилизм характеризуется двумя основными утверждениями: (1) истина никогда не соответствует реальности, и (2) объекты никогда не соответствуют своим качествам, что находится в прямом противоречии с теорией британского эмпиризма. На этой основе кратко намечена модификация познавательного критерия «обоснованное истинное мнение».

Ключевые слова: фаллибилизм, обоснованное истинное мнение, несоизмеримость, Карл Поппер, Имре Лакатос, Пол Фейерабенд, Томас Кун, Эдмунд Геттиер

The intellectual friendship between the "anarchist" philosopher of science Paul Feyerabend and the self-styled "rationalist" Imre Lakatos remains invigorating. Their irreverent correspondence, contained in a volume entitled *For and Against Method*, is notable for lively teasing on both sides of the exchange [Lakatos, Feyerabend, 1999, pp. 119–373]. At the beginning of the book, editor Matteo Motterlini also patched together a plausible-sounding dialogue between the two authors by assembling statements from elsewhere in their writings [Ibid., pp. 1–18]. Here Lakatos proposes "turn[ing] science from a mere game into an epistemologically rational activity; from a set of lighthearted sceptical gambits pursued for intellectual fun into a serious fallibilistic venture of approximating the 'Truth of the Universe.'" [Ibid., p. 7] Feyerabend expresses approval of this "candid fallibilism," before adding provocatively that "the task of scientists no longer lies in 'searching for the truth' or 'improving predictions,' but rather, in the words of the Sophists, 'in making the weaker case the stronger one, thereby to sustain the motion of the whole.'" He continues the thought as follows: "*The truth*, whatever it is, *be damned*. Play, fun, and fiction will make you free." [Ibid., p. 8] Rather than scolding Feyerabend for promoting the widely despised Sophists, Lakatos links his friend with a different school of Ancient Greek philosophy:

> Your position is just a colorful version of Pyrrhonian scepticism. You should look at the excellent book by [Richard] Popkin: *The History of Scepticism*. From a sceptic's point of view, scientific theories are a set of beliefs which have equal epistemological ranking to so many other sets of beliefs. There may be *change* in belief systems but no *progress* [Ibid., p. 13].

Although it would be a pleasure to quote further from this amusing dialogue, it has already provided the basic elements we need for this article. Lakatos opposes a scepticism that is said to put all beliefs on the same level, upholding instead a form of scientific rationality distinguished by its commitment to progress. He calls this a "fallibilism" capable

of "approximating" the truth of the universe, though he puts both terms at a distance through the use of scare-quotes. For Feyerabend's part, he sides with "play," "fun," "fiction," and even the Sophists themelsves, as opposed to scientific truth and accurate prediction. As he famously puts it elsewhere, in science "anything goes": it is simply a "power struggle" where magic, witchcraft, and ancient science are on essentially the same footing as the modern science of which we are all so proud [Lakatos, Feyerabend, 1999, pp. 116–117]. Laid out in this way, the disagreement between Lakatos and Feyerabend might look like a standard comic book opposition between rationality and irrationality. Yet the true situation is more interesting than this: not because the two friends agree and are both right, but because they disagree and in important respects are both wrong.

As we have seen, one term saluted equally by Lakatos and Feyerabend is "fallibilism," referring to the view that all scientific truth is subject to refutation at any moment. Here I will use the term "weird fallibilism" to refer to an important aspect of the fallibilist problem that both thinkers partly miss. This is not my first use of the term "weird" in a philosophical context [Harman, 2012]. But while some of my critics have pretended to find this word either unintelligible or emptily trendy, it has a precise technical sense [Gironi, 2012, pp. 317–318]. By "weirdness" I refer to the effect that arises from a pair of ineffaceable gaps in reality: (1) the difference between an entity in its own right and its appearance to perceivers or its role in causal relations; (2) the difference between an entity and its own qualities. The first point is a challenge not only to correspondence theories of truth, but even to assymptotic theories that imagine us approaching truth ever more closely, even if incompletely. The second amounts to a renunciation of David Hume's theory of objects as bundles of qualities [Hume, 1978].

Justified True Belief

It seems commonsensical to link knowledge with truth. What else could knowledge be, if not access to the truth? But a number of qualifications are already needed, and therein lies the intricacy of the problem. In Plato's *Meno* and *Theatetus*, early efforts are made to exclude the lucky guesser from the sphere of knowledge in the strict sense [Plato, 1992]. An octopus might swim to the logo of Argentina the day before the 2022 World Cup Final while avoiding the French flag also present in its aquarium, thereby "predicting" the victory of Lionel Messi and the Argentinian squad. Of course, only the most superstitious observer would think that the octopus was acting on "knowledge." Something more is clearly needed, and thus from Plato onward it became customary to speak of knowledge as *justified* true belief. From the class of all those who hit

upon the truth, we must exclude those who reached it without sufficient evidence.

But there are problems with both of these terms: (1) justification, and (2) truth. We begin with justification. If an apparent truth is not convincing in its own right, we will normally ask for an external piece of evidence to shore up our belief. If it seems unbelievable to a young person today that Henry Kissinger was once awarded the Nobel Peace Prize, any standard reference book will be enough to confirm it. It is true that one could question further whether such books are reliable, and in that case additional inquiry might be needed, perhaps even to the point of paranoid conspiracy theory. Just this morning I was briefly tricked by a Photoshopped image into accepting the existence of the "rainbow jay," a multicolored but non-existent bird supposedly indigenous to the mountains of South America. With the rise of internet misinformation, responsible people have learned to be cautious about anything found online. But in principle, even scientific researchers might ask endless suspicious questions of their peers, as humorously imagined by Bruno Latour: "By now we have to imagine a [scientific] dissenter boorish enough to behave like a police inspector suspecting everyone and believing no one and finally wanting to see the real endorphin with his own eyes." [Latour, 1987, pp. 39–44] Yet the point is not only – as Latour argues – that the suspicious dissenter must stop somewhere in order to prevent other scientists from becoming increasingly angry and incredulous. Beyond this, even in purely theoretical terms there is no resting place able to bring our doubts definitvely to a halt; any supposed fact can always be questioned by asking for its supporting evidence.

In the history of philosophy this was pushed especially far in René Descartes's notion of an "evil genius" (with George Berkeley's God providing the contrary case of a "good genius") [Descartes, 1993]. Yet any attempt either to prove or disprove Descartes's hypothesis can be met with demands for further evidence at every step of the way; we need not endorse the French philosopher's own willingness to stop with whatever "clear and distinct" ideas he encounters on his path. There is no such thing as ultimate justification for any piece of knowledge, other than our eventual lack of interest in doubting it further. There inevitably comes a point when an inquirer simply concludes that they are in the presence of sufficiently convincing evidence; here they stop asking the further questions that might be posed by Latour's boorish scientific inspector. Among other things, this shows why analytic philosophy is on the wrong track in its obsession with "arguments" for any claim, given that arguments are just another form of justification, and every inquirer eventually ends in some purported piece of unarguable self-evidence. Many important philosophers – Nietzsche comes to mind – earn our allegiance less through stringent local argumentation than through direct proclamations of apparent truth bolstered by rhetorical flair. This same point will be

reached (though with lesser flair) by any aspiring Frege, Russell, or Quine as well [Nietzsche, 2001].

A better-known issue with justification stems from so-called "Gettier problems," after the unprolific but influential analytic philosopher Edmund Gettier (1927–2021) [Gettier, 1963, pp. 178–179]. Imagine that two men named Smith and Jones are interviewing for the same job. (Why always such boring names in philosophy examples? Why not Malvolio and Mephisto, or Archie and Stuke?) The company president thanks Smith for his interest in the position, but then reveals disappointing news: it is Jones who will be hired instead. Smith takes the news gracefully, and based on his bizarrely happening to know that Jones has exactly ten coins in his pocket, Smith thinks the following odd thought: "the man who will get the job has ten coins in his pocket." But Jones must have failed his background check, since Smith is suddenly and surprisingly offered the position that he thought was already lost. In a celebratory mood, Smith inexplicably empties his pockets and discovers that he has exactly ten coins as well. Does this mean that Smith "knew" that the man who would be hired was in possession of ten coins? Not really, and that is Gettier's point. For although Smith's belief in the success of a man with ten coins turned out to be true, something was obviously wrong with his justification for this belief. Smith did not just make a lucky guess, unlike Plato's hypothetical person who haphazardly gives us the proper directions to Larissa. Smith did have evidence justifying his prediction: a direct statement from no less a figure than the company president. Yet he ended up with the right result for the wrong reason, and this means that he had no knowledge in the strict sense of justified true belief. We note in passing that Gettier's article is aimed solely at the "justification" part of this formula. Nothing is said about truth itself, which functions as a sort of control in his thought experiment. Although perhaps only tactically, he depicts truth in his article as if it were a simple matter of correspondence between belief and reality.

Yet Gettier calls our attention only to some specific cases of lucky truths without justification, which leaves open the possibility that many justified true beliefs do in fact exist. Crispin Sartwell has argued instead that justification is irrelevant, so that true belief alone – as with Smith in Gettier's example – is enough to constitute knowledge, though it is hard to see how this escapes Plato's concerns about the lucky road to Larissa [Sartwell, 1992]. The opposite possibility, that knowledge would consist only of justified belief irrespective of whether or not it is true, is considered by Linda Zagzebski in her helpful article on Gettier problems. "On this approach," as she puts it, "the element of truth in the account of knowledge is superfluous and knowledge is simply justified (warranted) belief. S is justified in believing 'p' entails p," before adding that "[f]ew philosophers have supported this view." [Zagzebski, 1994, p. 72] The framework for her article is the observation that attempts to over-

come Gettier problems have generally taken one of two paths: (1) adding something extra to the definition of knowledge beyond justification and truth; (2) attempting to reconceive justification in a way that reliably yields knowledge, as with Alvin Plantinga's shift from justification to what he calls "warrrant" [Zagzebski, 1994, p. 65]. Among other things, this allows Plantinga to treat justification and truth as matters of degree, a maneuver whose darker continental analogue can be found in Martin Heidegger's theory of truth as a gradual unveiling that never fully reaches its goal [Heidegger, 1998]. Yet Zagzebski argues that options (1) and (2) both still lead inevitably to Gettier problems. As long as there remains a minimal gap between justification and truth, there will always be an element of luck involved in knowledge [Zagzebski, 1994, p. 69]. We are asked to consider another example. In the dim light of her house, Mary thinks she sees her husband in a chair and thus concludes that her husband is in the living room, even though the person she observes is actually her brother-in-law. But in a not-so-strange twist, it so happens that her husband is also sitting in the living room, though in a different chair not currently visible to Mary. Thus Zagzebski concludes that knowledge will always be plagued by this Gettier challenge unless we define it either solely in terms of justification, or go to the other extreme and link justification and truth so tightly together that mismatches between them can simply never occur. Much like Gettier himself, Zagzebski is concerned with clarifying our concept of justification and its link with knowledge; also like Gettier, she provisionally accepts a standard sense of truth as correspondence between belief and the world.

Fallibilism

Invention of the term "fallibilism" is credited to Charles Sanders Peirce, who deployed it against claims – most famously, those of Descartes – to have direct intuitive access to truth [Peirce, 2011, pp. 42–59]. Yet I like to think of fallibilism as already present in an amusing passage from Aristotle's *Metaphysics*: "Theoretical knowledge concerning the truth is in one way difficult to get and in another way easy. An indication of this is that while none is capable of hitting upon it in the way it deserves, neither do all completely fail to hit it…" [Aristotle, 2016, p. 27] Nonetheless, I think it is necessary to uphold fallibilism in a more radical sense than usual. One common employment of the term might be called "naïve fallibilism," meaning the view that sometimes we are right and sometimes wrong and can never be sure when either of these is the case: a harmless but perfectly toothless stance. Next, let's use the phrase "moderate fallibilism" to refer to the concession – found even among scientistically minded thinkers, but equally so in Heidegger's assymptotic model of

truth – that although new discoveries and refutations of past truths will continue in the future, our current inadequate knowledge at least entails a "partial" access to reality [Brassier, 2007]. Finally, let's introduce the term "radical fallibilism" for the view that there is not even partial agreement between thought and reality. The latter option might seem to lead to skepticism, and even to those moments in Feyerabend and the early Latour where science seems to be treated as a mere power struggle. Incidentally, it is my view that Feyerabend is especially wrong to attribute this position to Thomas Kuhn, though he is far from alone in doing so [Lakatos, Feyerabend, 1999, p. 117; Latour, 1987; Kuhn, 2012; Latour, 1999, pp. 216–235; Harman, 2009, pp. 85–95].

Along with Peirce, another of the chief fallibilist thinkers in modern philosophy is Karl Popper [Popper, 1980]. Rejecting the verificationist principles of the Vienna Circle, Popper famously insists that while any theory (including "pseudo-scientific" ones) can easily find verifying evidence, a true scientific theory must actively try to survive conscious and sincere attempts to falsify it. Popper's view that even Marxism and psychoanalysis are pseudo-scientific stems from the failure of these schools to specify those conditions under which they would be willing to abandon their theoretical outlook. Both look for additional verifying evidence without facing the challenge of potential falsification: this is why Popper focuses so heavily on "crucial experiments" in the history of science. Nor does he agree with Kuhn that such risky science is relatively rare by contrast with workaday "normal science"; for Popper even the non-heroic, mid-level scientist must boldly face up to possible refutation at every stage of their work [Popper, 1970]. One important feature of Popper's view is that it treats scientific discovery less as a movement *toward* truth and more as one *away* from current scientific orthodoxy. In terms of our old chestnut "justified true belief," Popper shifts the balance of forces from truth back toward justification, primarily in the negative sense of the latter term. After all, he is more interested in what experiment forces us to abandon than in what quantity of truth (if any) we might currently possess. As Lakatos puts it: "the most rigorous observance of Popperian method may lead us away from truth, accepting false and refuting true laws." [Lakatos, 1978, p. 186] Elsewhere, Lakatos notes a related consequence of Popper's philosophy: that scientific theories can no longer be judged instantaneously or in isolation, but only over a considerable period of time, and only by comparing them with their rivals. Lakatos also made stunning application of Popper's fallibilist principles to the philosophy of mathematics in his celebrated *Proofs and Refutations*, whose title and subtitle (*The Logic of Mathematical Discovery*) show clear Popperian verbal and conceptual influence [Lakatos, 2015]. Indeed, Lakatos was initially a bit starstruck when he encountered the older thinker: "Popper's ideas represent the most important development in the philosophy of the twentieth century […] Personally, my debt

to him is immeasurable: more than anyone else, he changed my life. I was nearly forty when I got into the magnetic field of his intellect." [Lakatos, 1978]

Yet Lakatos did not remain a Popperian, and the reason why is crucially important for this article. In one sense, the innovation of Lakatos beyond Popper was simply to question whether "crucial experiments" really exist. Scientists never work with a single theory but with a "research program," a phrase referring to a general viewpoint on scientific problems beyond any specific theoretical commitments. One of the chief results of this shift is that while individual falsifications are treated by Popper as automatic crises for the adherents of a theory, Lakatos deems research programs to be robust to numerous falsifications as long as no better theory is available (a point already made by Kuhn, incidentally) [Kuhn, 2012, p. 80]. As Lakatos puts it: "Each research program, at every moment of its existence, has unsolved problems and undigested anomalies. All theories, in this sense, are born refuted and die refuted." [Lakatos, 1978, p. 5] This is true of even the greatest scientific figures: "When Newton published his *Principia*, it was common knowledge that it could not properly explain even the motion of the moon; in fact, lunar motion refuted Newton. [Walter] Kaufmann, a distinguished physicist, refuted Einstein's relativity in the very year it was published." [Ibid.] Whereas falsifications are precious gems for Popper, Lakatos regards anomalies as a dime a dozen, surrounding us at all times like the sellers of fake Rolex watches who crowd our bus terminals. In something of a paradox, this leads Lakatos back to the privilege of verifying evidence, which his former mentor Popper had so disliked in the Vienna Circle. That is to say, one of the best signs of a successful scientific research program is its ability to make surprising predictions that are eventually confirmed: the periodicity of Halley's Comet in the case of Newtonian physics, the bending of starlight and explanation of Mercury's anomalous perihelion for Einstein. Yet this is just one application of Lakatos's wider conception of research programs, which can be divided into two basic types: (1) progressive, and (2) degenerating [Harman, 2019]. Progressive research programs not only make occasional bold and successful predictions, but also grow larger over time, "bustling with activity" as they go [Lakatos, 1978, p. 128]. By contrast, degenerating research programs tend to invent *ad hoc* hypotheses to explain away any refuting evidence they might encounter. Although Lakatos holds that such *ad hoc* measures are also a sign of robustness shared by all programs, degenerating ones do little else but produce them.

Over time degenerating programs become narrower and more self-abosrbed, to the point that Lakatos recommends refusing both funding and publication avenues to degenerating work. But how can we know when a research program has become truly undeserving? Here we find one of the main points of criticism aimed by Feyerabend at his friend Lakatos:

> [T]here is no rule that tells the scientist to remove a degenerating program – and rightly so, for a degenerating program may recover and come out on top […] It is "rational" to pursue a research program on its degenerating branch even after it has been overtaken by its rival. There is therefore no "rational" difference between the methodology of Lakatos and the "anything goes" of the anarchist [Lakatos, Feyerabend, 1999, p. 116].

Lakatos himself seems somewhat conflicted about how to deal with non-progressive research programs. Alongside his volcanic threats to bar degenerating programs from the sphere of legitimate scientific society, we also find statements of remarkable tolerance and patience: "[T]he methodology of scientific research programs does not offer instant rationality. One must treat budding research programs leniently: programs may take decades before they get off the ground and become empirically progressive." [Lakatos, 1978, p. 6] This obviously cuts against the grain of Lakatos's harsher policy, showing that the Hungarian-born philosopher is no less committed than Feyerabend to lengthy suspensions of judgment in the face of new research programs. Yet something in Lakatos clings to the idea of a less tolerant "rationality," and it is not hard to understand why: as seen earlier, he views Feyerabend as a sceptic in the mold of the ancient thinker Pyrrho [Lakatos, Feyerabend, 1999, p. 296]. For Lakatos, this not only has the epistemological downside of treating all opinions as inherently equal; it also leaves us defenseless against the power of the strong. For "there is only one type of political philosophy consistent with scepticism: the philosophy that equates *might* with *right*. This is why many sceptics became well-paid courtiers of the bloodiest tyrants in history." [Ibid., p. 13] Similar critiques have been made of Latour, as I have discussed elsewhere [Harman, 2014]. Lakatos's claim, in short, is that good politics requires political *knowledge*, or at least convincing progress towards such knowledge. Far from denying these charges – though he saw himself as politically benevolent – Feyerabend seems to relish the accusation of scepticism. Against his friend's claims on behalf of rationality, Feyerabend exclaims "the truth be damned," while praising both "mob psychology" and Dadaism [Lakatos, Feyerabend, 1999, pp. 249, 257, 295]. Yet Feyerabend prefers the label of "anarchist" to that of "sceptic." In his own words: "[w]hile the sceptic either regards every view as equally good, or equally bad, or desists from such judgments altogether, the epistemological anarchist has no compunction in defending the most trite, or the most outrageous statement." [Ibid., p. 14] It was presumably in this same spirit that Feyerabend would sometimes invite a warlock or an astrologer to address his classes at the University of California at Berkeley, a rebellious practice he clearly enjoyed reporting to others.

Incommensurability

What we seek in this article is fallibilism without scepticism. As mentioned, fallibilism often entails the harmless but inadequate view that we have a certain amount of knowledge ("justified true belief") at our disposal even though much still remains – at least for now – unknown. We still find such a view defended for instance by Markus Gabriel, a prominent contemporary New Realist philosopher [Gabriel, 2024]. An alternative seems present in Feyerabend's anarchist standpoint, though he seems to remain a sceptic anyway through his distrust of the word "truth." Since a short article like this one is ill-equipped to deal with Feyerabend's major books *Against Method* and *Farewell to Reason*, we turn instead to "Consolations for the Specialist," solicited for a 1965 London conference devoted to Thomas Kuhn's masterpiece *The Strucutre of Scientific Revolutions* [Feyerabend, 2010; 1988; Kuhn, 2012].

The initial portion of the article gives the impression of Feyerabend as a stern and frustrated critic of Kuhn, if somewhat apologetically so [Feyerabend, 1970, p. 205]. Whereas Kuhn argues that the rigid work done under a scientific paradigm helps shape a profession positively, Feyerabend appears to view this as a sign of authoritarian leanings on Kuhn's part [Ibid., p. 198]. Although this verdict srtikes me as excessive, it does enable Feyerabend to make an interesting critical point. After all, it is true that Kuhn views the alternating rhythm of normal and paradigm-shifting science as stretched out in historical time, thereby implying that only certain periods in the history of science are appropriate moments for dissent. Against this, Feyerabend makes a solid case for treating normal and revolutionary (or "philosophical") science as existing simultaneously [Ibid., pp. 208, 211]. This allows him to place greater emphasis on the proliferation of multiple competing theories at any point in the history of science: a much better fit with his "anarchist" vision of anti-authoritarian and hedonistic humans pursuing their own passions rather than marching in lockstep with consensus tyranny [Ibid., p. 212]. Against the widespread assumption of a historical *Weltgeist* that smoothly links all simultaneous trends in a seamless whole, Feyerabend rightly emphasizes the way in which different portions of human knowledge exist "out of phase" with each other. Some fields are making rapid progress at any given moment, while others languish in crisis or bask in second-hand banality [Ibid., p. 205]. Offering a brief but brilliant case study, Feyerabend recalls how the physics of the mid-nineteenth century was actually made up of three separate but incompatible strands, their interactions eventually paving the way for the approaching downfall of classical physics at the hands of Max Planck and others from 1900 forward [Ibid., p. 207]. All this is well worth contemplating, since it poses a fundamental challenge to Kuhn's vision of how science unfolds in historical time.

Yet the main theme of Feyerabend's article emerges later, and concerns a point of basic *agreement* between him and Kuhn: scientific incommensurability [Feyerabend, 1970, p. 219]. Both authors refer primarily to the incommensurability of scientific theories with each other, rather than a lack of common measure between a theory and the world itself [Ibid., p. 204]. Feyerabend dismissed the direct comparison of theory with reality as relatively rare, while Kuhn remained puzzled to the end of his life about the extent to which he was or was not a realist who believed in a single outside world. The two were colleagues at Berkeley for a short time in the early 1960s, and clearly profited from their conversations there. They are on record as saying they have no clear memory of who first used the term "incommensurability," though both initially used the term in print in 1962 [Kuhn, 2012, p. 219]. One aspect of incommensurability, accepted equally by the two, is that knowledge need not be cumulative: a conceptual revolution loses as much as it gains, since the older paradigm it replaced will often have given brilliant explanations of many issues not even touched upon by the new one [Ibid.]. Consider the way in which modern medicine, for all its excellence, has lost an inestimable amount of knowledge concerning indigenous herbs and homepathic treatments, some of them dating back to hard-won Neolithic *sagesse*. Kuhn's favorite example is what he calls the incommensurability between the physics of Newton and Einstein. For example, although the word "mass" occurs in both systems, it does not refer to the same thing in the two cases, since for Newton mass is conserved while for Einstein it is convertible with energy [Ibid., p. 102].

Feyerabend echoes this sentiment with his claim – often made by Kuhn as well – that perfect translations are never possible [Feyerabend, 1970, p. 225]. Drawing on the child psychology of Jean Piaget, Feyerabend cites the difference between (a) what objects first mean for children, who initially regard them as something like fleeting visual afterimages, and (b) their later belief in self-enclosed material things independent of the mind [Ibid., p. 223; Piaget, 2013]. In any case, we cannot hold that our knowledge "resembles" the world, given Popper's estimable suggestion that discovery takes us *away* from previous theories rather than *toward* the truth: in other words, we cannot really speak of verisimilitude when assessing scientific claims [Feyerabend, 1970, p. 227]. This makes for a radical gap between theory and reality, thus ensuring that the "true" part of the phrase "justified true belief" comes under suspicion in a way not attempted in the arguments of Gettier or Zagzebski. Justification still remains operative, though in the primarily negative sense of justification via falsification of the alternative (Popper) or of contrast with other, less progressive theories (Lakatos). This is the first sense in which fallibilism must take on "weird" form, recalling once more that this is a technical term referring to the gap between any entity and itself. The gap in question is the one between supposed knowledge and its object, given

the impossibility of bringing them onto the same wavelength. It is much like the way that a globe and a map are not commensurable, since maps require distortion of either the shapes or sizes of the earth's land masses.

Retroactivity

The second of the gaps is found not in Popper, Lakatos, or Feyerabend, but is openly present in Kuhn, though he seldom emphasizes it enough. The topic arises twice in *The Structure of Scientific Revolutions*: first in connection with the discovery of oxygen, and then in the history of X-rays. In the former case, the two primary contenders for having discovered oxygen were Joseph Priestley and Antoine Lavoisier, though it is interesting that neither can make a clear claim to the honor: both scientists misidentified the gas at first, Priestley thinking it was nitrous oxide and Lavoisier "the air itself entire." Kuhn's conclusion is that oxygen was discovered at some point between 1774 and 1777, with no greater precision being possible. He toys with the important formula that it was first discovered *that* oxygen is before it was determined *what* it is, a pair he links tentatively with the familiar opposition between discovery and invention [Kuhn, 2012, pp. 66–67]. In the case of Wilhelm Röntgen and x-rays, a similar hesitant path was followed in the opposite direction, though it involved just one person over a much shorter period of time: "We can only say that X-rays emerged in Würzburg [Röntgen's home city] between November 8 and December 28, 1895." [Ibid., p. 58] These two examples can be treated as preludes to Kuhn's definitive treatment of retroactivity, in his book on Planck and so-called black-body radiation: the very topic from which quantum theory was born [Kuhn, 1987]. What Kuhn argues in his book is that Planck "discovered" the quantum in 1901, but only as a mathematical solution. Not until 1909, in the wake of objections from figures as weighty as Paul Ehrenfest and Albert Einstein, was Planck forced to "invent" the quantum as a genuine smallest physical unit of nature. These conclusions by Kuhn are stranger than they seem, since they entail that a theoretical object exists out of phase not just with reality, but even with its own qualities. This demonstrates the abiding problem with David Hume's dogmatic empiricist slogan that an object is merely a bundle of qualities: after all, we never really have a good handle on the qualities possessed by an object [Hume, 1978]. In this way, retroactivity provides a second argument for a weird fallibilism.

Given that theoretical objects fail to match up both with (a) reality, and (b) their own qualities, it is interesting to ask what this double criterion of weird fallibilism might mean for the old principle that knowledge is justified true belief. One immediate implication, I think, is that truth and justification simply cannot travel together. Since no piece of evidence

for anything can ever be final and unshakeable, justification can only provide mediated evidence that encourages something like provisional belief. It should be clear that science is more a matter of justification than it is of truth, given the fallibilist principle that there is always some degree of mismatch between belief and reality. As for truth (at least in the sense of correspondence), I suggest it to be impossible not "because there is no objective reality," but precisely because there *is* such a reality. Most readers will admit that there is a big difference between any given thing and the knowledge of that thing. Even the most perfect concept of fire cannot burn anything to the ground. But in what does this difference between real and conceptual fire consist? The question is seldom posed, let alone answered, though most philosophers seem to assume loosely that the real fire differs from the conceptual sort by inhering in something called "matter." But is it not far more likely that the qualities of fire in my mind bear only a loose, quasi-visual resemblance to those of real fire? Yet here we must stop, since the battle on this point will be with Immanuel Kant. After all, the entire thrust of his argument against the ontological proof for the existence of God is not so much his famous one-liner that "being is not a real predicate," but Kant's openly stated view that imaginary and real coins *do have the same qualities*, so that the difference between them consists in their "position" relative to us [Kant, 1978]. The provisional lesson of this article is as follows: despite his recognition of the gap between the in-itself and appearance, Kant is not enough of a fallibilist.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 120–140
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 120–140
DOI: https://doi.org/10.5840/eps202461346

Reading Feyerabend between Philosophy of Science, Hermeneutics – and God

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This essay seeks to make the case for reading hermeneutic philosophy of science with Feyerabend. In addition, there is the question of science, as Nietzsche raises this question along with Feyerabend's programmatic recommendations for traditional philosophy of science. Including a discussion of method in history as in theology and philology, including Nietzsche's hermeneutics, this essay reviews Feyerabend's exchanges with Lakatos along with the resistance of mainstream philosophy of science to hermeneutics as such. A discussion of Feyerabend's 'gods' engages what he invokes as ontological abundance as well as his criticism of the limitations of Popper's critique of Parmenides requiring both historical/historiographical context, an understanding of science in practice, via a contextualization of Schrödinger, and via Plato's epistemology along with Duhem on experiment and Riegl on style, crucial for Feyerabend on the notion of 'progress,' key for Lakatos and others, in art and science.

Keywords: Lakatos, Nietzsche, classical philology, hermeneutic philosophy of science, ontological pluralism

Прочтение Фейерабенда: между философией науки, герменевтикой и богом

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В этом эссе я пытаюсь обосновать необходимость прочтения герменевтической философии науки вместе с Фейерабендом. Здесь также ставится вопрос о науке, который возникает и у Ницше, и в программных тезисах Фейерабенда о традиционной философии науки. В этом эссе, включающем обсуждение метода в истории, теологии и филологии, в том числе герменевтики Ницше, рассматривается переписка Фейерабенда с Лакатосом, а также сопротивление господствующей философии науки герменевтике как таковой. Обсуждение «богов» Фейерабенда включает в себя то, что он называет онтологическим изобилием, а также его неприятие ограниченной критики Парменида Поппером, требующей как исторического/историографического контекста, так и понимания науки на практике через контекстуализацию Шредигера, эпистемологию Платона, идеи Дюгема об эксперименте и теории познания, Ригля о стиле, решающих для понимания Фейерабендом понятия «прогресса», ключевых для Лакатоса и других в искусстве и науке.

Ключевые слова: Лакатос, Ницше, классическая филология, герменевтическая философия науки, онтологический плюрализм

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> Es giebt keine alleinwissendmachende Methode der Wissenschaft!
>
> Nietzsche, *Morgeröthe*, §635

> Es ist immer noch ein metaphysischer Glaube, auf dem unser Glaube an die Wissenschaft ruht…
>
> Nietzsche,
> *Zur Genealogie der Moral*, III: 24

> Nicht der Sieg der Wissenschaft ist das, was unser 19tes Jahrhundert auszeichnet, sondern der Sieg der wissenschaftlichen Methode über die Wissenschaft.
>
> Nietzsche,
> *Kritische Studienausgabe*, 13, 442

The Case of the Missing Dialogue

Paul Feyerabend (1924–1994) dedicates a fair amount of time to offering words of advice to readers attempting to understand him or otherwise for 'specialists' in need of 'consolation.' He also tells us, repeatedly, that in the case of *Against Method*, both with respect to its style and its content, the book itself remains part of a jointly conceived project. The original plan had been both *dialectically*, in a Hegelian sense as Imre Lakatos (1922–1974) would understand the reference, and, above all, *dialogically* conceived. As philosophic form, Feyerabend argued that the dialogue approximated the life of the natural sciences [Feyerabend, 1991]. Thus constituting an informal ethnography of science, it is the personal exchange that takes place at conferences, or via 'letters to the editor and faxes' (updated today with email and texts, and online communications), that permits us to understand scientific papers and books as these "not only lag behind, [but] cannot be understood without this occasionally rather shapeless form of discourse." [Ibid., p. 164] The dialogue is also a fiction with a 'good conscience,' a 'reconstruction' in place of real events, or after the fact, a framed set piece presupposing partners and an audience. Thus Galileo composed dialogues in Plato's mode (including Plato's *Politeia* and the *Timaeus*). This is part of a broader philological question (matching the Homer question) (see [Nietzsche, 1995, pp. 514, 613–632], for discussion [Babich, 2020, pp. 15–48]). One part of what Feyerabend thus explains as a two part exchange, Feyerabend's *Against Method* should have been read alongside the *For Method* riposte of Lakatos, who died the year before the 1975 publication of the first edition of *Against Method*, leaving the book a perpetual torso.

The claim is not contradicted but it is complicated by several editions of the book, including a posthumous fourth edition, introduced by Ian

Hacking, citing Jean Largeault's review assessment: "more than a book: it is an event" [Hacking, 2010, p. vii]. Compounding hermeneutic efforts, there is an identically titled 1970 essay [Feyerabend, 1970]. Noteworthy in this constellation, likewise in 1970, Feyerabend contributes his *Consolations for the Specialist* to a collection featuring Thomas Kuhn along with Margaret Masterman's paradigmatic disambiguation of Kuhn in addition to Lakatos on *The Methodology of Research Programmes* and Feyerabend [Lakatos and Musgrave, 1970], with a German translation of Lakatos' essay adding the Popperian signifier 'Falsification' [Lakatos, 1974a], suggesting intersecting projects. (Scholars rightly track the differences, see [Collodel, Oberheim, 2020].)

The Feyerabend who moved in constellations or 'collages' of ideas just to note his enthusiasm for Dada and, given the proximity of Berkeley to the Bohemian Grove, not less for inviting Satanists to speak to his students (for fees about which exorbitance he would complain to Lakatos) was committed to 'epistemological relativism,' *faute de mieux*, a deficit inasmuch as relativism is branded as wrong-headed in advance and which can only be weakly – suspicion of relativism is hard to shake – redefined as "ontological pluralism."

Feyerabend was dedicated to pluralism (what he called anarchism) from *Against Method* and *Science in a Free Society* to his posthumous *The Conquest of Abundance* [Feyerabend, 1999] as it might have been his own plan to combine this with – a question which can only be resolved by a critical *Nachlass* edition, certainly this would accord with his own account – his likewise posthumously published *Naturphilosophie* ([Feyerabend, 2009], in English [Feyerabend, 2016]).

Feyerabend wrote and published in English and an arguably necessary critical hermeneutic reading between Feyerabend's Austrian-German texts and Feyerabend's English (in which he rightly took idiomatic pride) has yet to be undertaken. English was also the language shared between the Austrian, Feyerabend and the Hungarian, Lakatos (see [Motterlini, 1999] and cf. [Motterlini, 2002a]). But reading Lakatos' "Lectures on Scientific Method" as if one might have been listening outside the lecture hall as Feyerabend recalls that he listened to Lakatos, can seem to corroborate Feyerabend's account of Lakatos' role in instigating *Against Method*. Part of this inspiration includes Lakatos' work on mathematics as on science and research methodology, along with his programmatic and Hegelian conviction regarding a 'rationally reconstructed' history, bracketing the ontic details of historical fact, refined as a kind of Lacanian 'real' history, reconstructed in a progressive (i.e., 'rational') as opposed to a regressive, 'pseudo'-scientific sense, thereby engendering the positive construct of a definitively *scientific* 'history' of science. (See [Lakatos, 1968; 1976; 1978]. And see [Gavroglu et al., 1989], and [Ropolyi, 2002]). I will come back to the complex conception of a scientific history in connection with Alois Riegl's style. (See [Riegl, 1901] and in English [Riegl, 1985] and for a grammati-

cally attuned discussion of philology and art [Sauerländer, 1983] on style and on Nietzsche on Homer [Babich, 2010, here: 348f]).

The dialectical scheme of the book that never was to be between Paul and Imre emerges through a reading of their letters. Thus Matteo Motterlini introduces *The Lakatos-Feyerabend Correspondence (1968–1974)* by quoting Feyerabend as the clearest and best exposition of "the origin and scope of his and Lakatos's joint project":

> I was to attack the rationalist position, Imre was to defend it, making mincemeat of me in the process. Taken together, the two parts were supposed to give an account of our long debate concerns the matters that had started in 1964, had continued in letters, lectures, telephone calls, almost to the last day of Imre's life and had become a natural part of my daily routine. ([Feyerabend, 1975, p. 15], cited in [Motterlini, 1999, p. 119])

Reconstructions are conjectured, invented: editors make them up. Thus historically, rigorously speaking, evaluated in terms of "factual" or ontic accuracy, editorial reconstructions can only fail. The failure is not on the level Lakatos intended, i.e., the failure is not "rational" nor is it a failure on the level of a coherent book collection – does it make sense? does it read well? (Cf. [Lakatos, 2002] and [Motterlini, 2002a], as well as [Motterlini, 2002b]). Thus we still need a critical edition.

It is essential to read between Lakatos and Feyerabend to understand Feyerabend's allusions to Marx and not less to Hegel (references to Kierkegaard may also feature in this tension). (See, for example, specifically relevant to "Russian language literature on Lakatos' Hungarian background," [Lynch, 2018, p. 57] as well as [Dusek, 2015]. Largely concerned with Kuhn and Popper and 'Science' on [Feyerabend, 1977], see [Franklin, 1977] and including a reply from Suchting [Suchting, 1978] useful for the debate on anarchism in [1982]).

Lakatos' archives provided the material for Motterlini's compilation of the *Lakatos-Feyerabend Correspondence*. But this happenstance is a matter of accident and good luck. All the material we have is per force the material that has been preserved as Goethe already complained, as Friedrich Kittler cites Goethe:

> Literature is the fragment of fragments; the least of what had happened and of what had been spoken was written down; of what had been written down only the smallest fraction was preserved. [Kittler, 1987, p. 105]

If email can seem to change everything along with social media, the hermeneutic advantage of an exchange of letters remains (cf. [Arnold, 2018]). As Motterlini tells us:

> Feyerabend recalls that 'Imre and I exchanged many letters about our affairs, ailments, aggravations and most of all the recent idiocies of our colleagues. […] Cambridge University Press wanted to publish our letters, but could not: as usual I had thrown away Imre's part of the corre-

> spondence. Only a few postcards survived as bookmarks, or to cover holes in the walls of my house.' [Motterlini, 1999, p. 119]

The present author corresponded with Feyerabend in the late 1980s and early 1990s and there were in addition telephone calls, dozens, perhaps hundreds of those. (I have yet to organize my records and although I composed on a computer, I kept no copies of my letters. Nor did I take Feyerabend seriously when he suggested I edit/publish the typed manuscripts he sent on his behalf.)

In their correspondence, Lakatos and Feyerabend enjoyed the temperamental advantage of irony toward one another, enhanced by their happy malice towards what Feyerabend recounts as "the recent idiocies of our colleagues," including a dismally dismissive sexism when it came to the 'girls,' as they referred to students, assistants, and colleagues.

Although a trigger from today's perspective, this same sexism articulates the conclusion to Feyerabend's 1970 "Against Method," defining science as a woman (not unlike Nietzsche's what-if metaphor supposing truth as a woman – "*Vorausgesetzt, dass die Wahrheit ein Weib ist…*" [Nietzsche, 1980]) Seemingly elaborating Nietzsche's invective against clumsy philosophical dogmatists, Feyerabend writes: "We can turn science from a stern and demanding mistress into an attractive and yielding courtesan who tries to anticipate every wish of her lover." ([Feyerabend, 1970a, p. 92], and the courtesan becomes a "pussycat" in [Feyerabend, 1970c, p. 229). Feyerabend repeats the provocation eleven years later (think in a different direction of Kate Manne's *Logic of Misogyny* [2017]) in *Problems of Empiricism*, 2:

> Once, long ago, Lady Reason was a beautiful, strong, helpful though somewhat overbearing Goddess of research. By now her lovers (or should I rather say, pimps?) have turned her into a garrulous but toothless old woman. [Feyerabend, 1981a, p. 246]

The 'toothless old woman' is not an allusion to Nietzsche (although the sentiment echoes in both *Thus Spoke Zarathustra* and *Beyond Good and Evil*) but channels a then- and still-popular masculinist sensibility (in a recent lecture in Weimar, my slides included Edmund Dulac's 1909 illustrated verse from the *Rubaiyat of Omar Khayyam*: 'You Know, My Friends, How Bravely In My House For A New Marriage I Did Make Carouse: Divorced Old Barren Reason From My Bed, And Took The Daughter Of The Vine To Spouse.')

Feyerabend asked Lakatos if he might persuade Karl Popper to reply and the imagined idealization of Popper as target/interlocutor explains some of the challenges of *Against Method*. Broader than the issue of interlocutor (Lakatos or Popper) is the question of *method*. Given Feyerabend's attention to Duhem and to the context of Galilean science, 'method' would include theological or scholastic method (See on this [Lonergan,

1971] and [Burtt, 1947]) as well as historical method – see Butterfield and Crombie ([Butterfield, 1931] and [Crombie, 1971], relevant for classical history of science, and see [Simiand, 1985] as well as for a sense of context and further references, [Bos, 2012]), just to note Feyerabend's own references.

In addition, the question of method includes 19th century philological method (for a broader sense of philological method than is conventional see [Benne, 2005] and [Babich, 2020] and, more broadly regarded, [Fulk, 2016]). Critically, given the intersection of Feyerabend's interest in Homer and Parmenides and Xenophanes, featuring formulae and rhythmic composition, Nietzsche turns out to be more than relevant (see [Babich, 2015a] and [Babich, 2015b; 2020]) in addition to the need to supplement with Heidegger's discussion of history and hermeneutics in his 1927 *Sein und Zeit* along with Gadamer ([Gadamer, 1960]. See, if not specifically an engagement with Gadamer and Feyerabend, [Halilović, 1998] but specifically engaging Gadamer and Feyerabend along with Kuhn and Lakatos, [Ginev, 2016, 98ff]).

What is not to be disputed is that there was a lot of discussion of 'method' *per se* – Peter Medawar had, just around the time of Popper's success challenged the notion of a single scientific method, as did Rom Harré terribly subtly, by way of the use of the plural in his title *Philosophies of Science* (see for references and discussion, [Babich, 2015b] and [Babich, 2010]), and for a summary concentrating on chemistry, the introductory chapter to [Gauch, 2003]. On the definition of science as such, note the challenges in the context of philosophy of chemistry along with geology and biology (cf., again [Babich, 2010] along with [Castillo, 2013; Bauer, 1992]) and on science textbooks and philosophy of science [Blachowicz, 2009]). Thus I have argued, along with Dimitri Ginev and the Irish mathematician-physicist, Patrick Aidan Heelan (1926–2015) who was Erwin Schrödinger's assistant in Dublin, and who argues the case for Galileo *and* Luther [Heelan, 1994] *and* Nietzsche [Heelan, 1999], that we need hermeneutics not only for Feyerabend's philosophy of science but for Heidegger's and Nietzsche's philosophy of science [Babich, 2017; 2023].

Beyond method and its complexities, Feyerabend's problem concerns philosophy of science, arguing with some sarcasm, that

> we must confess that much of contemporary philosophy of science and especially those ideas which have now replaced the older epistemologies are castles in the air unreal dreams which have but the name in common with the activity they try to represent, that they have been erected in a spirit of conformism rather than with the intention of influencing the development of science, and that they have lost any chance of making a contribution to our knowledge of the world. [Feyerabend, 1970b, p. 172]

Analytic or philosophy has few issues with sarcasm. Yet Feyerabend's claim ticks the wrong boxes as he continues parenthetically:

> The medieval problem of the number of angels at the point of a pin had some rather interesting ramifications in optics and in psychology. The problem of "grue" has ramifications only in the theses of those unfortunate students who happen to have an engruesiast for a teacher. [Feyerabend, 1970, p. 172]

The intervening years have confirmed the 'gruesiast' point Feyerabend was making but, if it may be argued that nearly every scholar interested in philosophy of science might agree with some version of Feyerabend's claim that philosophy of science needs history, he argues, contra philosophy of science,

> the remedy needed is quite radical. What we must do is to replace the beautiful but useless formal castles in the air by a detailed study of primary sources in the history of science. [Ibid., p. 183]

Now we may think that most philosophers of science today are 'already' doing that but this is not so if they are are not engaging philosophy of science *hermeneutically*. Overall, our temperament has changed such that today we favour the bullet point, essayistic concision, the analytic takeaway. Key for Feyerabend, here thinking of Crombie on Grosseteste as well as Jaki on Duhem and others, remains the comprehensive reading of primary sources. In context.

Nietzsche's contention with respect to the 'triumph' of method (see epigraphs above) should be radicalized reading Feyerabend's rehabilitative reflections on Stone Age astronomy in his *Philosophy of Naure* (see especially the first chapter of [Feyerabend, 2016]) together with Feyerabend's efforts to contextualize Parmenides contra Popper arguing via Max Planck but also via continuity (here there is a silent reference to Erwin Schrödinger) with reference to Weyl as Feyerabend cites his own *Farewell to Reason* in his *Conquest of Abundance*. ([Feyerabend, 1999, p. 66]) With explicit reference to Popper's [1983] Feyerabend offers a counterargument that is both explicit and emphatically hermeneutic:

> Such an account cannot possibly be correct. It suggests that Parmenides, being overwhelmed by his vision, did not notice change while Democritus, more a man of the world, discovered it and refuted the Parmenidean theory. But Parmenides, far from overlooking change, tried to explain it (in the second part of his poem), though with the restriction that he was dealing with appearances; reality, he said (though not in these words), is unchanging and undivided. [Feyerabend, 1999, p. 69]

As Feyerabend traces his argument to Aristotelian logical privilege, what is crucial is "to follow the argument." Contra Popper on Parmenides, the role of logic as this too requires hermeneutics:

> In short, Being is many and moves in not-Being. Note the nature of the argument: Leucippus does not try to refute Parmenides by using the fact of motion. Parmenides had been aware of the fact and had declared it to be illusory. Moreover, he had not simply asserted the illusory character of motion, he had presented proofs. He had transcended sense impression on the grounds "that 'one ought to follow the argument'" (Aristotle, *De generatio et corruptione*, 325a12f.). Leucippus, in contrast, decided to follow perception; one might say that he and those who thought in a similar manner (Democritus, Empedocles, Anaxagoras) wanted to bring physics closer to common sense. [Feyerabend, 1999, p. 69]

Here, along with Hempel's ravens, Feyerabend brings in a reference to neutrinos that remains relevant for physics (to the current day) and Schrödinger, illuminating Planck's quip about changes in scientific theory (advancing one corpse at a time):

> The same is true of the observations of the W and Z particles and of the "neutrino,'" all of which are now regarded as "real." What matters is that the state exists, at least approximately, that some people strive for it, that they make it the center of their lives, and that they define reality (in words, or by the way they live) in relation to that center. An opponent must therefore do more than provide facts, rules, and arguments resting on them. He must dismantle the definition and change the life to which it belongs. Arguments about reality have an "existential" component: we regard those things as real which play an important role in the kind of life we prefer. ([Ibid., p. 70]. Cf. the footnote reference to Schrödinger here, p. 71).

Feyerabend turns to a reading of the *Theatetus* with a complicated invocation of measurement (and physical standards) vis-à-vis Bohr, requiring attention to debates on quantum mechanics, measurement conventionalities, objectivity and observation.

Thus the standard critical remark that Feyerabend's text covers a great deal can present difficulty in philosophy of science which as a rule does not tend to attend to Stone Age cosmology along with reading Parmenides via Leucippus and Aristotle and Plato contra Popper together with contrasting Bohr with Einstein, Podolsky and Rosen and pointing out, as Feyerabend here argues, that the latter fall short.

Would all that, would *any* of that correspond to a Lakatosian reconstructive account? Not likely but thanks to Motterlini's collection, we have a view into the current of the times and the debates at the LSE, as we may read in the letter 'dated' 17 December 1967 and posted from Berkeley. There we read Feyerabend's postscript referring to *Against Method*, including a perhaps unexpected reference that is not part of the received hermeneutic but pop canon:

> My paper will be a longish utilisation of Havas on relativity… and the title will be "Against Method" (this in analogy to Susan Sontag's *Against Interpretation*). If you could lure Karl Popper into commenting upon

> it I would be eternally grateful. (This is pure curiosity on my part). (PF to IL, 17 December 1967, [Motterlini, 1999, p. 125]).

We get beautiful aperçues of opinionated infighting, not only by – if mostly by – Lakatos, against Joe Agassi (ameliorated by the remark that "Agassi *at his worst* is better than Harvard-MIT average at their best"). (Il to Paul, 15 February 1968, [Ibid., p. 131].)

I noted the need to distinguish between versions of Feyerabend's *Against Method* – book(s) and article – clarifying matters for the attentive reader as by 30 June 1970, we read that "it is expected to become a history of empiricism from Neanderthal to Lakatos." (PF to IL, 20 June 1970 [Ibid., p. 202]). The formulation may seem hyperbolic but corresponds in the first part to Feyerabend's *Philosophy of Nature*.

Again recall the funerary procession Max Planck argued as decisive for the 'progress' of science. The quote stands behind Feyerabend's arguments as it stands behind Kuhn: matters of convention, things taken for granted, the so-called 'received view.' To quote Planck, science does not advance via argument, be it reconstructed or otherwise:

> new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die and a new generation grows up that is familiar with it… [Planck, 1950, p. 33].

For Feyerabend, scientists might have any number of reasons for abandoning a given 'paradigm', perhaps "out of frustration and not because they have arguments against it," whereby, and thus echoing Planck, "Killing the representatives of the *status quo* would be another way of breaking up a paradigm." [Feyerabend, 1970c, p. 203]

When a reigning scholar dies the upshot can be fairly flat as was the case with Popper. Other concerns displace the missing space and the formerly central name recedes into other names relevant to the discipline at the time, Kuhn and Feigl and Hanson but also Duhem and Neurath as well as, if esoterically, Mach in addition to the cast of characters needed for a clear reference to the Copenhagen interpretation (most readings focus only on Bohr or even to their detriment, Einstein et al.) of Quantum Mechanics, as Feyerabend also notes Carl Friedrich von Weizsäcker and Heisenberg and Schrödinger. Above I already mentioned Heelan, a Jesuit, physicist-philosopher friend of Feyerabend who also reads between Einstein and Bohr along with von Weizsäcker, emphasizing Heisenberg. (See [Heelan, 2016] and [Babich, 2023]).

The Bugbear of 'the' Analytic vs 'the' Continental and the Spectre of Hermeneutics

Hermeneutics is arguably the most durable legacy of the Lutheran revolution in texts, as Luther's translation of the Bible established the printed German language, a revolution that beyond sheer materiality (the Gutenberg Bible) owed no small part of its success to telling everyman that nothing whatever, no priest, no scholar, no handbook, need come between himself and his own reading whether it be it the Bible itself – *sola scriptura* – or indeed Machiavelli or Hobbes or the economic 'anything goes' that might hold with respect to the financial innovations made possible by Luther and Calvin (here, on just this point, beyond Weber see Alasdair MacIntyre's perfectly transformative analysis ([MacIntyre, 1970], in addition to (I thank Gerd Greiser for the reminder) Robert Kurz's W*eltordnungskrieg* [Kurz, 2003], and see too an online interview with Kurz [Suárez, 2009] as well as [Böttcher, 2023/2024]).

Today, our everyman lays claim to his own Nietzsche, his own Heidegger, or, crucial for Feyerabend (thinking of Brecht), his own Galileo. As Latour puts it in his *An Inquiry into Modes of Existence*: "didn't Galileo triumph all by himself over institutions, against the Church, against religion, against the scientific bureaucracy of the period?" ([Latour, 2015], cf. [Babich, 2017; 2015c]). Latour repeats the story we 'moderns' tell ourselves. But if Latour read Ludwik Fleck's The *Invention of a Scientific Fact*, (Latour provides an afterword to [Fleck, 2005], naming Fleck "the founder of sociology of science" in [Latour, 2005, p. 112], cf., [Babich 2015c]) it also seems that Latour, supported by a Fulbright to San Diego in 1975, read and took to heart Feyerabend's *Against Method* (or his earlier essay) where Feyerabend takes up the case of Galileo's propaganda, which one may read as Feyerabend's scientific anthropology/ethnography. (See too, in German [Feyerabend, 1975b]).

Feyerabend also wondered, famously, if anyone had ever 'read' *Against Method*, rebuking the hapless Joe Agassi [Feyerabend, 1978, pp. 125, 138] just where Nietzsche argued that reading as such had been "thoroughly unlearned." (Cf. [Babich, 2015a].) In particular, Feyerabend had trouble trying to explain to his critics, i.e., on his *critic's* own terms what Feyerabend was and was not arguing. Thus Feyerabend suggested his book inspired more reactions than engagement. (Cf. for one well-argued reason why, [Hacking, 2010, p. vii].)

Elsewhere I note (and it matters and must be underlined that this has not changed) that should an academic write outside the dominant, 'received,' tradition, however updated on the terms of current research, one will not be read. And if one is read, one will not be understood.

At issue for today's mainstream is the 'name calling' (*pace* [Rorty, 1997]) that often takes the place of reading, perhaps especially in mainstream

analytic philosophy. Obviously enough, post Brian Leiter and, in the case of the philosophy of science, post the salvos of a physicist, Alan Sokal (who, along with Jean Bricmont denigrated Latour in French (see for discussion [Babich, 2017b]), there is an abundance of *ad hominem* attacks; were there not, there would be no 'science wars.' (Cf. "Science Out of Context" in *Common Knowledge*, organized around the hermeneutic unpacking of Sokal's hoax [Babich, 1997], introduced by Rorty, "Left-Wing Kuhnianism" [Ibid.] and closing with Feyerabend [Ibid.]).

Contra Rorty's suggestion, Feyerabend has been called a number of names, especially in science, today our closest analogue to religion today. And already in the 19th century, Nietzsche had claimed (Heidegger varies the claim) that science is the 'new religion.' Assuming science *is* the new religion, might it follow that, like theology, science is in need of the services of philosophy? But where theology recognized the necessity of philosophy, today's science acknowledges no fealty to philosophy and the claim is equivocal on its own terms as today's philosophy no longer follows its own tradition but science.

Nietzsche's critique of science as humanizing convention addresses the issue of foundations significant for the sciences, including the mathematics of his day. (See [Stölzner, 2014]). Thus Nietzsche identifies the mathematization of nature with what he calls the 'humanization' of nature, challenging the very foundational possibility of empirical knowledge and thus of explanation in terms of mathematical/theoretical means. To this extent, Émile Poincaré (1828–1892) would seem to confirm (if thereby also to sidestep) Nietzsche's challenge by observing "Mathematical theories do not have as their object to reveal to us the true nature of things; that would be an unreasonable claim." [Poincaré, 1905, p. 211]

Feyerabend's Gods

Feyerabend shared his focus on logic and argument with Lakatos, if Feyerabend made it less clear than the Hegelian Lakatos might have done that what was at issue was what Kant characterized as the 'royal road of science' and thus what would be necessary for anything at all, including mathematics and logic, to count as a science. This is influential in Feyerabend's correspondence with Lakatos where he invokes not only his impatience (or is it Lakatos who is impatient with the truth value of *all swans are white*?) but in his posthumous *Conquest of Abundance* in his pro-Parmenides perspective as he speaks contra Popper in terms of Hempel's raven paradox.

It would have helped to invoke hermeneutics (see [Babich, 2023; Babich, 2017] and [Heelan, 1983], and [Heelan, 1977], along with [Parrini, 2009; Kisiel, 1976)]) and perhaps Heidegger who was already talking

about Parmenides in his 1930 *Introduction to Metaphysics* quite with respect to 'the nothing,' speaking as Feyerabend was of Rudolf Carnap, as Feyerabend names this his "pro-Parmenides" as this may help the reader to understand the *ontological* reference of the title: *The Conquest of Abundance*:

> According to Parmenides the most basic entity underlying everything there is, including Gods, fleas, dogs, and any hypothetical substance one might propose, is Being. This was in a sense a very trivial but also a rather shrewd suggestion, for Being is the place where logic and existence meet: every statement involving the word "is" is also a statement about the essence of things. [Feyerabend, 1999, pp. 61–62]

Speaking of 'Gods' in the plural adds trouble and at least one author has worried that Feyerabend might be a dangerous name for theology. ([Munchin, 2019] as well as, earlier, [Meynell 1978] in addition to [Martin 2016] and [Munchin, 2011].)

On the basis of what Feyerabend calls 'ontological abundance', Feyerabend draws a dramatic parallel between Parmenides and Shakespeare and the conservation of matter/energy:

> To start with, the premise, *estin* – Being is – is the first explicit conservation law; it states the conservation of Being. Used in the form that nothing comes from nothing (which found its way into poetry: *King Lear* 1.1.90) or, in Latin, *ex nihilo ni(hi)l fit*, it suggested more specific conservation laws such as the conservation of matter (Lavoisier) and the conservation of energy (R. Mayer, who begins a decisive paper with this very principle). [Feyerabend, 1999, p. 61]

All of this is *Nachlaß*.

At issue is the status of an author's posthumous work. Feyerabend's *Naturphilosophie, The Conquest of Abundance*, these books may not be counted, to echo Goethe's rubric, as *letzter Hand* or author-authorized editions. Thus my my own reservations against accepting, even with his authorization, Feyerabend's suggestion that I edit his work. The posthumous compilations to date, as the editors present these in their various articulations, show Feyerabend as concerned with the problem of science qua science and the empirical. Yet to argue that Feyerabend was (or was not) a 'realist' or 'empiricist', requires the similarly posthumous exchange between Feyerabend and Lakatos. As Feyerabend writes, (not at all incidentally close to Toulmin) at issue is the ultimate reality that is the object of science. Thus he cites Planck's 1930 "*Positivismus und reale Aussenwelt*,"

> The two statements, "'There exists a real external world which is independent of us' and 'This world cannot be known immediately' together form the basis of all of physics. How, they are in conflict to a certain extent and thereby reveal the irrational element inherent in physics and

> in every other science, which is responsible for the fact that science can never solve its task completely." (Cited in [Feyerabend, 1999, p. 62], cf., [Planck, 2001]).

Feyerabend's 'pro-Parmenides' argument is not about the Carnapian prohibition contra talking about nothing, as Heraclitus managed to do this, to Parmenides' irritation, but and this is key for Feyerabend's discussion of Popper, about logic *per se*. Thus Feyerabend expounds:

> The argument wants to prove that "reality" is eternal, indivisible, and free from change. It assumes that what exists simply is – *estin* – and has no further properties. Once this assumption is made, the only distinction that remains between an event and its predecessor in time (or neighbor in space) is that the one is and the other is not – and now the conclusion follows. [Feyerabend, 1999, p. 66]

Feyerabend's point is that the premise is not established by way of 'argument' for formal reasons, arguing, logically, that Parmenides' reasoning deployed *modus tollens*:

> *Estin* was a premise and so it certainly was not established by the argument itself. More importantly, there existed objections against accepting such an assumption. Aristotle mentions two… the assumption conflicts with natural philosophy (where change and subdivision are taken for granted); and it conflicts with common sense ("'to be' is used in many ways" – a favorite Aristotelian slogan). [Ibid.]

The problem is that Parmenides argues against change, hence the need to keep both logic and the antilogic that is alteration (change). The standard story (and this is a mini-version of the account contra Galileo throughout *Against Method*), corrects Parmenides by suggesting that he manages not to notice that there is change in the world. For Feyerabend, who ascribes this claim of non-notice to Popper,

> Such an account cannot possibly be correct. It suggests that Parmenides, being overwhelmed by his vision, did not notice change while Democritus, more a man of the world, discovered it and refuted the Parmenidean theory. But Parmenides, far from overlooking change, tried to explain it (in the second part of his poem), though with the restriction that he was dealing with appearances; reality, he said (though not in these words), is unchanging and undivided. [Ibid., p. 69]

Using the example noted above of neutrinos, as first posited in theory and subsequently regarded – complicatedly so given the elusive nature of neutrinos *to date* – as 'real,' ([Feyerabend, 1999, p. 69]) Feyerabend thus brings Parmenides this into the debate as he read this between Schrödinger and Bohr and thence to Einstein, Podolsky, and Rosen [Ibid., p. 76], which is the challenge of quantum mechanics and objectivity (cf. Heelan on Heisenberg [Heelan, 1965] and cf. [Heelan, 2016]).

It can be helpful to note Feyerabend's own footnote on this debate as he tells us that:

> Erwin Schrodinger used precisely such a decision in his criticism of Bohr. "Bohr's standpoint that a spatiotemporal description is impossible, I reject *a limine*. Physics consists not merely of atomic research, science not merely of physics, and life not merely of science. The purpose of atomic research is to fit our experiences from this field into the rest of our thought; but the rest of our thought, as far as it has to do with the external world, moves in space and time." [Feyerabend, 1999, p. 71]

Here Feyerabend points out with a reading of Plato's epistemological argument in the *Theaetetus* that

> we must admit that the key words of an argument are often ambiguous in the sense that they await specification from the kind of enterprise one is engaged in. If the purpose is to change beliefs in accordance with a new and comprehensive cosmology, then a conflict between this cosmology and popular opinion cannot be used to criticize the former. [Ibid., p. 73]

Now in addition to measurement and the amusing example of stretching a "rubber unit-meter in Vienna" and thereby changing the length of a piece of wood in Australia [Ibid., p. 76], Feyerabend reminds us that

> Ontological or worldview discussion has to precede the use of counterexamples, it cannot be based on it. But worldview discussion is not different from other kinds of discussion which means that we can no longer assume discussion-independent and in that sense "objective" arbiters of a debate. This applies even to such apparently trivial cases as "all ravens are black" – the favorite example of naive falsificationists. [Ibid., p. 77]

To read Feyerabend on the terms of today's philosophy of science is fraught as Feyerabend uses both then-commonplace conventions (these have changed in the interim) in dialogue with the conventions of (a certain reading of) classical philology in addition to ancient astronomy as key to *Naturphilosophie* (via [Meyer-Abich, 1997]). In addition, one must take account of his attention to questions of art and science, especially the role of *style* in art (thus Feyerabend's references to Ernst Gombrich and, when it comes to his discussion of Brunelleschi's 'experiment,' Duhem in the background and explicitly cited, if more elusively, Alois Riegl).

If Feyerabend called himself an 'anarchist,' (see [Tsou, 2005] and [Kusch, 2021]), with his contextually freighted reference to Riegl – and the history of art history, i.e., and specifically, in a German context the 'science of art' – Feyerabend invokes a precision most of his readers will miss as they neither support nor understand the concept. This can mean (it has meant) that the reader sets Feyerabend into his or her own conceptual context to whatever end and this has characterized assessments, be they critical or rehabilitative of his thinking. Matters are compounded as

alternative approaches that happen to be 'continental' continue to be excluded and were excluded even in Feyerabend's day, even as the exchange between Feyerabend and Lakatos can also be read as ushering their own names off the philosophical stage of mainstream, analytic philosophy of science (cf. Lakatos [Motterlini, 1999, p. 297]).

The politics of the academy, as unpleasant as it is influential, makes/breaks careers, reputations, lives. At stake is the question of fitting Feyerabend into what one supposes philosophy of science to be, challenging as he was only incidentally trained (at the LSE) in the received style of philosophy, and it has been argued that both Feyerabend and received philosophy of science would benefit from hermeneutic and non-mainstream styles of philosophy of science.

For mainstream, business-as-usual philosophy of science, Feyerabend remains problematic and can continue to be designated as the 'worst enemy of science' (this is the way Tsou begins his [Tsou, 2003] essay and see too [Preston et al., 2000] as well as [Brown, Kidd, 2016] and others [see for further references: Kidd, 2011 and Babich, 2023]. Cf., too, [Preston, 1997] as well as [Kidd, 2011]), which entails that Feyerabend's defenders (largely) seek to demonstrate that he was (as he was) pro-science. And scientists have taken umbrage from the start as they, somewhat more naively than philosophers (and pop culture), suppose themselves to use some version of 'the scientific method.' (Cf. here [Theocharis, Psimopoulos, 1987] and, surprised by backwash contra their (one-sided) account in their letter [Theocharis, Psimopoulos, 2001], as well as [Pigliucci, 2018].)

The trouble for philosophy of science is that Feyerabend was not pro-philosophy of science.

I argue that it is worth reviewing Feyerabend's philosophy of science together with hermeneutic phenomenological approaches in philosophy of science, especially with respect to space perception [Heelan, 1983]. Above, I referred to Heelan on Heisenberg and objectivity as this intersects with Feyerabend's discussion of complementarity and quantum mechanics including Heelan's reference to the von Neumann 'cut' ([Heelan, 2016, p. 84], including the "measurement process marking the epistemological cut between the observer-subject & the observed-object." [Ibid., p. 85] Heelan also draws on his own familiarity with optics and renaissance perspective (Brunelleschi but also non-Euclidean geometry) [Heelan, 1983]), detailing the 'measurement process marking the epistemological cut between the observer-subject & the observed-object' [Heelan, 2016, p. 85] along with philosophical differences between Heisenberg, Bohr, and Einstein.

Feyerabend's own arguments regarding Galileo point to the preparation for experimental science as such, as Feyerabend references Crombie and Duhem, to argue contra Kuhn that "talk about a 'revolution' only reveals the historical ignorance of the talker" (PF to IL 4 May 1971,

[Motterlini 1999, p. 249]), etc. The complicated constellation Feyerabend has in mind comes closest to the constellation Nietzsche observes in his Basel lectures with respect to Kant and Anaxagoras (cf. [Babich, 2021]). The argument there would lead Nietzsche to his own characterization of the world as a *Spielwerk* – not necessarily ruled by law yet not lacking necessity as such. A parallel may be made, beyond this essay, to a study Feyerabend characterizes as, alternately, 'marvelous' and 'excellent' ([Meyer-Abich, 1965]), a text that has yet to be translated (also missing from the realm of desiderata might be his practical 'natural philosophy ([Meyer-Abich, 1997]).

To that end we read in the summer of 1971, Feyerabend's assessment of his differences with Lakatos:

> From an *argumentative* point of view our "theories" are equivalent. They are *not* so from a psychological point of view. Nor do we have the same *basic normative judgments*. In the "Battle of the Ancients and the Moderns," *I* would side with the ancients, *you* would side with the moderns. I believe that Galileo cheated and had to cheat, that is; you believe that mob psychology plays only a very minor role in science, while I think that it is everything and reason plays hardly any role in science. I prefer happiness to truth, you – well, here I am not so sure, but I am sure that you will say publically that you prefer truth to happiness. […] So you see, if we stick to basic n.j. [normative judgments] we would have lots to talk about (PF to IL, 15 July 1971 [Motterlini, 1999, p. 257]).

What can be supplemented is two-fold, the references to standard signifying terms in philosophy of science but, more profoundly what is missing is the philosophy once called 'continental,' on the side of interpretation and context, or hermeneutic philosophy of science [Babich, 2015b]. As hermeneutic philosophy of science includes critique, it tends to remain largely unreceived in philosophy of science (see [Ginev, 2016] along with [Babich, Ginev, 2014]. The same, to be sure may be said of classically phenomenological approaches, and of readings of science that feature critique, including Fleck and Latour, etc.

I cannot fully work this out here as it would take chapters – and probably a genial interlocutor or partner in dialogue, as Feyerabend imagined such – to begin with, but I can point to it.

Postscript: On Feyerabend and Nietzsche

In the late 1980s and early 1990s, I spent a fair amount of time trying to persuade Feyerabend to talk about Nietzsche only to find him more underwhelmed than I would have imagined on the basis of his own arguments in *Against Method*.

Thus Ian James Kidd rightly points to more affinities with "critical theory and the Frankfurt School and the later writings of Heidegger and Husserl than to the dominant themes and figures of analytical philosophy" [Kidd, 2021, p. 187]. Helmut Heit and Eric Oberheim in their introduction to [Feyerabend, 2016, pp. vii-xxvii], see general compatibility with Nietzsche. And, once upon a time, a professor of literature argued contra another professor of literature, Walter Kaufmann's experimentalism – still defended by analytic Nietzscheans – that Nietzsche was a relativist, paralleling Feyerabend with Kuhn but also Nietzsche contra "the methods which Carnap, Hempel, Nagel, Popper, or even Lakatos want to use for rationalizing scientific changes can be applied [to disputes between incommensurable cosmological points of view]" [Bearn, 1986, p. 147]. Although Bearn does not cite Nietzsche on the Homer question, Feyerabend's own point dovetails with Nietzsche's conclusions: 'What remains are aesthetic judgments, judgments of taste, metaphysical prejudices, religious desires, in short, what remains are subjective wishes.' ([Feyerabend, 1975, p. 285], cited in [Bearn, 1986, p. 147]; cf. [Babich, 2012]).

Bearn's argument (and arguments like his argument) set both Nietzsche and Feyerabend in the camp of the relativists. Nor would Feyerabend mind. Yet the more you know about Nietzsche and science, the less relativist Nietzsche turns out to be and the less Nietzsche fits Feyerabend, true to Feyerabend's reservations, if the Feyerabend of *Naturphilosophie* is slightly more compatible with Nietzsche.

Nevertheless, had Feyerabend read the unpublished Nietzsche I recommended (certainly he came to read beyond Zarathustra), Nietzsche would have been invaluable for his discussion of Homeric formulae *and* Greek nature philosophy. Crucially, however, for a number of historical reasons, Nietzsche's most important lectures were not fully accessible to Feyerabend. (I discuss the scholarly significance of the relatively late, 1996 publication of Nietzsche's complete Basel lectures [Babich, 2020]).

Thus, a discussion of the connection between Feyerabend and Nietzsche on science must remain for another day.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 141–157
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 141–157
DOI: https://doi.org/10.5840/eps202461347

FEYERABEND AND KUHN ON MONISM AND PLURALISM

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Feyerabend had many interlocutors in his controversial career, and one of them was Kuhn. One key point of contention in their interaction was the divergence between the monism inherent in Kuhnian normal science and Feyerabend's pluralism about the content and methodology of science and other systems of knowledge. In this paper I offer my perspective on this disagreement. After presenting Feyerabend's critique of Kuhn, I argue that the disagreement between Kuhn and Feyerabend on this point was not as radical as it may appear. Feyerabend respected the autonomy of diverse cultural and epistemological traditions, and such traditions are often monistic within themselves, in the manner of Kuhnian normal science. On the other hand, Kuhnian revolutions require the presence of competing paradigms at least during periods of extraordinary science. I propose a pluralist position that can accommodate local monism, but ultimately recommends going beyond monism for the purpose of productive interactions between different systems of practice. Such a pluralism can incorporate the advantages of both Feyerabend's liberal epistemology and Kuhn's advocacy of disciplined normal science.

Keywords: Feyerabend, Kuhn, monism, pluralism, normal science, dogmatism, paradigm

ФЕЙЕРАБЕНД И КУН О МОНИЗМЕ И ПЛЮРАЛИЗМЕ

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Кун был одним из многих собеседников в противоречивой карьере Фейерабенда. В спорах Фейерабенда с Куном одним из ключевых вопросов было расхождение между монизмом, присущим куновской нормальной науке, и плюрализмом, который Фейерабенд защищал в отношении науки и других систем знаний. В этой статье я предлагаю свой взгляд на это разногласие. Я рассматриваю критику Фейерабенда в адрес Куна и показываю, что разногласие между Куном и Фейерабендом по этому вопросу не было таким радикальным, как может показаться. Фейерабенд уважал автономию различных культурных и эпистемологических традиций, и такие традиции часто являются монистическими внутри себя, подобно куновской нормальной науке. С другой стороны, куновские революции требуют наличия конкурирующих парадигм, по крайней мере, в периоды экстраординарной науки. Я предлагаю плюралистическую позицию, которая может учитывать локальный монизм, но в конечном итоге рекомендует выходить за пределы монизма для продуктивного взаимодействия между различными системами практики. Такой плюрализм может включать в себя преимущества как либеральной эпистемологии Фейерабенда, так и позиции Куна, защищающей нормальную науку.

Ключевые слова: Фейерабенд, Кун, монизм, плюрализм, нормальная наука, догматизм, парадигма

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To a casual observer of the philosophy of science, Paul Feyerabend and Thomas Kuhn would seem to have played very similar roles in the 1960s and 1970s. They each contributed greatly to the demise of the traditional picture of science that was built on both the common sense among scientists and the philosophical legacy of logical positivism. However, appearances can be deceiving. In this paper I will try to delineate the complex relation between Feyerabend's and Kuhn's philosophies of science. There are two layers of deceptive appearances to be peeled away. First of all, even though the two philosophers had some common ideas, Feyerabend's critique of Kuhn's views advanced in *The Structure of Scientific Revolutions* was very sharp, particularly in relation to the Kuhnian concept of "normal science". But it would also be a mistake to take Feyerabend's critique of Kuhn simply at face value. There were deeper commonalities between their ideas than Feyerabend was ready to admit, and it is possible to reconcile their positions in a productive way, though perhaps neither of them would have been happy to adopt the synthesis that I will offer here.

This paper has three main objectives. First, I will try to come to a clear and detailed understanding of Feyerabend's critique of Kuhn, which was given in detail in two particluar places: Feyerabend's letters to Kuhn commenting on a draft of *The Structure of Scientific Revolutions* [Hoyningen-Huene, 1995; 2006], and his paper "Consolations for the Specialist" published in the volume *Criticism and Growth of Knowledge* [Lakatos, Musgrave, 1970] arising from the famous symposium on Kuhn's work held in London in 1965 [Feyerabend, 1970].[1] The core of Feyerabend's objection was based on his pluralism, against the kind of dogmatic monism shown in Kuhn's conception of normal science. Second, I will show that the divergence between Kuhn and Feyerabend was not as large as Feyerabend made it out to be. On the one hand, Feyerabendian pluralism can and should allow each autonomous tradition to have disciplined coherence, which is quite liable to slide into monism. On the other hand, the health of Kuhnian normal science depends on a degree pluralism at least during the periods of extraordinary science. Third, I will argue that in Feyerabend's early critique of Kuhn there were clear pointers to a systematic kind of pluralism that the bravado of Feyerabend's later philosophy concealed. This kind of pluralism can in fact accommodate the best aspects of Kuhn's philosophy, as well as Feyerabend's own.

[1] The opening footnote in Feyerabend's paper [Feyerabend, 1970, p. 197] indicates that an earlier version of this paper was given at Popper's seminar in March 1967, and the preface to the volume [Lakatos, Musgrave, 1970] confirms that Feyerabend did not speak at the 1965 symposium. Kuhn gave a response to all the papers in the volume, in which he was quite brief on Feyerabend and mostly treated him as one of the Popperians [Kuhn, 1970c, pp. 245, 254].

Feyerabend's Critique of *Structure*

As is well known, Feyerabend and Kuhn overlapped briefly at the University of California at Berkeley during a brief period around 1960. This was a crucial period of development for both of them. In 1962 they both published major works in the philosophy of science: Kuhn's now-classic book *The Structure of Scientific Revolutions* (henceforth *Structure*), and Feyerabend's now-neglected paper "Explanation, Reduction, and Empiricism". These publications contained some of the key ideas which made them connected with each other in many people's minds, including the notion of "incommensurability", by which they meant similar enough things. But Feyerabend was a very harsh critic of the draft of *Structure* that Kuhn shared with him. There is much evidence that they had involved philosophical discussions with each other in person.[2] Those conversations were not recorded, but Feyerabend also wrote enormously long letters to Kuhn at the time, detailing numerous points of criticism. Four letters of Feyerabend commenting on *Structure* were discovered by Paul Hoyningen-Huene in the papers left by Feyerabend and Kuhn after their deaths; Feyerabend did not put dates on these letters, but Hoyningen-Huene [Hoyningen-Huene, 2006, pp. 611–612] reaches a reasonable conclusion that they must have been written between May 1961 and sometime in 1962 before *Structure* appeared in print. These letters were edited and published by Hoyningen-Huene with careful annotation pointing to relevant passages in the published version of *Structure*. These letters deserve careful scrutiny, which I will seek to give here.

The main target in Feyerabend's critique of *Structure* was monism, particularly as manifested in Kuhn's description of "normal science". Near the start of his first letter to Kuhn, Feyerabend articulated this target clearly: "You have expressed to me your belief, and you express it again in your essay[,] that it is only by concentrating *on a single paradigm*, by trying to fit nature into it despite all apparent difficulties, that scientific progress is achieved." [Hoyningen-Huene, 1995, pp. 355–356][3] Later on he used the term "monism" to describe his target, calling out Kuhn's "hidden predilection for monism (for one paradigm)" [Ibid., p. 367]. The word itself is not used in his 1970 paper, but the meaning remains very clear in this passage: "He [Kuhn] defends not only the *use* of theoretical assumptions, but the *exclusive choice* of one particular set of ideas, the monomaniac concern with only one single point of view." [Feyerabend, 1970,

[2] Feyerabend [Feyerabend, 1970, p. 197] opened "Consolation for the Specialist" by remembering these personal interactions.

[3] Feyerabend's letters will be cited as [Hoyningen-Huene, 1995] or [Hoyningen-Huene, 2006], but all quotations are Feyerabend's own statements. All emphases are by Feyerabend himself; he underlined a great number of words and phrases in his letters to Kuhn.

p. 201] He saw the monism in Kuhn's thinking clearly and identified it explicitly as such, rather than just expressing worries about dogmatism, as Karl Popper [Popper, 1970], John Watkins [Watkins, 1970] and others did.

Feyerabend attacked Kuhn's monism from various angles. First, he quickly dismissed a psychological argument in favor of monism that Kuhn might have had in mind: "You seem to think it psychologically impossible for a scientist and, indeed, for any human being to be able to entertain various alternative hypotheses and to discuss them impassionately. I think you are a little too pessimistic." The only argument Feyerabend provided for his view here was historical: "Faraday did so… and so did the Presocratics, so did Einstein". [Hoyningen-Huene, 1995, p. 356] Here Feyerabend was also indicating an objection to Kuhn's description of history, about which I will say more below.

After waving away the psychological argument for monism, Feyerabend proceeded to make normative arguments against Kuhnian monism. His initial point was that theoretical pluralism increased the empirical content of science. It is the critical contention between opposing theories that allows scientists to maintain and increase the empirical content of those theories:

> Also I think I have shown in my own essay[4] that considering a set of mutually inconsistent but factually adequate theories *increases* the empirical content of any element of the set and this for the simple reason that many tests *presuppose* the existence of an alternative! (they are crucial tests) If this is the case then we must make the decision: what do we prefer, increased empirical content of the theories we possess, or that unanimity of research and the close fitting produced by it in the periods which you call the normal periods. [Ibid.]

Feyerabend thought that normal science ran the risk of becoming dogmatic: "this method of excluding novelties, this attempt to press nature into the boxes of the theory will gradually *decrease* the empirical content of the theory until it is finally almost zero." This is in direct contradiction to Kuhn's view that normal science was the most effective method of gaining factual knowledge about nature. Feyerabend thought that a revolution was needed in order to shake scientists out of dogmatic stagnation: "A scientific revolution which shows the limitation of the theory and which points out very plainly where it is wrong therefore *gives back empirical content* to the theory". Therefore "*Revolution in Permanence* should be the battle cry of every empiricist." [Ibid., p. 358] Note an unspoken pluralist rendering of scientific revolutions here. In the Kuhnian picture the vanquished old paradigm is discarded by scientists, only to be remembered by historians henceforth. Not so for Feyerabend: revolutionary

[4] I think here he was probably referring to [Feyerabend, 1962].

struggle (and even defeat) actually revitalizes the old theory by making it meaningfully testable again, thereby restoring its empirical content and making it scientific again in the Popperian sense. So the old theory will live on after a revolution, even though it is not the leading contender any more: "after all we still use the classical mechanics for the calculation of the behavior of the upper planets." [Hoyningen-Huene, 2006, p. 626]

While Kuhn argued that the most strenuous test of a paradigm was made through the detailed and precise esoteric research carried out in normal science, Feyerabend stressed the limitations of this process. Kuhn responded to the worry that the dogmatism of normal science would prevent revolutionary developments by pointing out that "a puzzle-solving tradition can prepare the way for its own displacement" [Kuhn, 1970b, p. 10]. In *Structure* itself he argued: "Research under a paradigm must be a particularly effective way of inducing paradigm change" [Kuhn, 1970a, p. 52]. Unlike the typical scientist whose vision is dominated by present triumphs, Kuhn had a seasoned pessimism of the historian: no matter how successful a paradigm is, it will eventually uncover anomalies that it cannot handle, and fall into a crisis, and then make way to a new paradigm that can resolve the crisis. But Feyerabend asked: is the dogmatic pursuit of the dominant paradigm the only way, or even the best way, to arrive at a crisis? Normal science only reveals anomalies in certain directions. For example, Feyerabend argued that phenomenological thermodynamics by itself would not have uncovered the challenge of Brownian motion. Rather, this anomaly was "discovered by the elaboration of an *alternative account*, viz. of the kinetic theory which then produced predictions that could be tested by experiment." One could dispute the details of the history of Brownian motion implied in Feyerabend's claim here, but his general point is clear and plausible: "Your [Kuhn's] insistence upon faithfulness *to one and only one paradigm* is bound to result in the elimination of otherwise very important tests and it is bound in this way to reduce the empirical content of the paradigm". He invoked David Bohm in support of the point that "the limitations of the present point of view will become evident only if one has first introduced an alternative and shown that it is preferable" [Hoyningen-Huene, 1995, p. 365]. Feyerabend chided Kuhn for claiming that "invention of alternatives is just what scientists do not, and probably ought not undertake".[5]

Feyerabend returned to this point in his second letter to Kuhn. In this rendition of the argument, Feyerabend was perhaps responding to a defence given in conversation, which Kuhn articulated in print only a decade later: contrary to what Watkins alleged [Watkins, 1970, pp. 29–32], Kuhn

[5] Kuhn quoted by Feyerabend, in [Hoyningen-Huene, 1995, p. 365]. The statement is from p. 70 of the manuscript of *Structure*, and Hoyningen-Huene locates a similar passage on p. 76 of the second edition of the published version of *Structure* [Kuhn, 1970a].

was not "down-valuing" scientific revolutions in comparison to normal science. On the contrary, Kuhn [Kuhn, 1970c, p. 241] stated that he shared "the conviction that the central episodes in scientific advance – those which make the game worth playing and the play worth studying – are revolutions." Well, then, Feyerabend inferred, it must be a good thing to drive normal science into a crisis so that we can have a revolution: "if you welcome acceleration of the development towards crises *you must also welcome consideration of alternative paradigms* which, *as you admit yourself*, may lead to crises." [Hoyningen-Huene, 1995, p. 374] Feyerabend could see no reason why only crises generated from the dogmatic pursuit of normal science were to be welcomed. In fact he sketched out a general theory of scientific crises, which he didn't develop further to the best of my knowledge. There are three distinct types of causes for a crisis in a paradigm: "(1) failure to fit nature into its categories…; (2) inconsistency with successful alternatives that have been developed, either with the intention of elaborating the main paradigm… or on the basis of a completely different metaphysics that has been sleeping for some time…; (3) internal unclarities". Then he added: "It seems to me that every crisis contains *all these three elements*." [Ibid., p. 375]

It is worth noting that what we see in these arguments is not quite the later, more (in)famous Feyerabend of *Against Method* [Feyerabend, 1975a] and *Science in a Free Society* [Feyerabend, 1978]. Feyerabend in the early 1960s was still guided strongly by the epistemological dimension of Popperian philosophy, focused on testability and empirical content. His third letter to Kuhn gave a very accurate representation of the sophisticated falsificationism only familiar to those who had really delved into the middle of Popper's *Logic of Scientific Discovery* [Hoyningen-Huene, 2006, pp. 624–628]. In fact, far from being "against method", Feyerabend's 1961/2 critique of Kuhn continually invoked the importance of methodology and methodological rules. He also resisted Kuhn's inclination to take methodology to be paradigm-dependent. In a surprisingly universalist register, Feyerabend argued that the "only non-arbitrary elements" of science were "the methodological ones, i.e. the stipulations which demand such relatively trivial things as that the theories be testable, that *ad hoc* hypotheses… be avoided etc. etc." [Hoyningen-Huene, 1995, p. 359]. Advocating for stronger empirical tests of theories, he argued that "in order to be able to give reasons for one's predilections one has to refer to methodological considerations" [Ibid., p. 362]. While accepting that methodological rules could not fix all scientific decisions, Feyerabend argued that there were some basic ground-rules to be respected in all of science: "Although there is no set of rules capable of explaining *every* move that is being made, there are rules which definitely *forbid* that certain moves are made." As examples he singled out the prohibition of *ad hoc* hypotheses (again), and of "dogmatic moves, i.e. moves which decrease the testability of a given hypothesis" [Ibid., p. 363;

Hoyningen-Huene, 2006, p. 626]. In another passage he pointed to basic empiricism as part of universal scientific methodology, in saying that not all theories and perspectives were to be allowed in science: "the limits are set by the methodological rules which exclude some of the 'ways of seeing the world' on account of the fact that they are not about the world at all, but interesting fairy tales (their 'logic' is different from the 'logic' of scientific theories)." [Hoyningen-Huene, 1995, p. 357]

There was a strong normativism in Feyerabend's critique of Kuhn, which was in fact a lasting tendency is Feyerabend's philosophy of science more generally, and throughout his academic life. "Anything goes" should not be mistaken as an expression of relativism free of value-judgement, in any phase of Feyerabend's philosophy. And Feyerabend had a violent objection to what he saw as Kuhn's pretence that he was simply giving a description of science as it has been practiced over the centuries. In fact this was the very first point that Feyerabend launched against Kuhn in his first letter: "What you are writing is not just history. It is *ideology covered up as history.*" [Ibid., p. 355] Feyerabend stressed this point again in his published critique of Kuhn: "Whenever I read Kuhn, I am troubled by the following question: are we here presented with *methodological prescriptions* which tell the scientists how to proceed; or are we given a *description*, void of any evaluative element, of those activities which are generally called 'scientific'? Kuhn's writings, it seems to me, do not lead to a straightforward answer… I venture to guess that the ambiguity is *intended* and that Kuhn wants to fully exploit its propagandistic potentialities." [Feyerabend, 1970, pp. 198–199]

Feyerabend saw "danger" [Hoyningen-Huene, 1995, p. 354] in Kuhn's blurring of the descriptive – normative boundary, especially when it came to the monist presentation of "normal" science:

> What I do object to most emphatically is the way you present this belief of yours; you present it not as a *demand*, but as something that is an obvious consequence of historical facts. Or rather, you do not even talk about this belief, you let it as it were emerge from history as if history could tell you anything about the way you *should* run science (is *does not* imply ought!). It is this bewitching way of representation to which I object most, the fact that you take your readers in rather than trying to persuade them. [Ibid., p. 355]

This point erupted again later in the same letter, with more passion and vitriol:

> …you present an ideology, and a very questionable monolithic ideology at that, in the covers of history. In this respect you are really very similar to those who point to history in order to justify their crimes. You are a mystic, an irrationalist. And by this I mean that you not only hold certain beliefs (conservative character of normal science), but that you are not prepared to let these beliefs speak for themselves; you rather present

> them in a manner which suggests that they are facts and thereby force people to swallow them without criticising them. What are you afraid of? [Hoyningen-Huene, 1995, p. 367]

What Feyerabend demanded of Kuhn was that he should be upfront about his belief about how science should be done, so that the readers can be aware that they are being confronted with someone's normative view, which they can then evaluate for themselves. Pretending that one can "just do history" has an insidious effect: "Historical presentations have a curious influence. They tell what is the case. But sometimes they make people feel that this is what ought to be done. And they make people feel that way especially when the writer of the history has this belief himself." [Ibid., p. 361] If Kuhn thought monist normal science was the best way to learn about nature, Feyerabend thought he should come out and say that, and provide philosophical arguments for that claim, the same way Feyerabend himself was arguing explicitly for his pluralist philosophy. He kept returning to this point, devoting his entire third letter to it [Hoyningen-Huene, 2006, pp. 614–618].

Feyerabend also thought that Kuhn's hidden normative monism resulted in a descriptive distortion of history. What Feyerabend denounced as Kuhn's "hidden predilection for monism" (quoted above) actually led to "a false report of historical events". For example, Kuhn presented "classical physics" as one paradigm, when it was actually "a bundle of alternatives" (contact action vs. action at a distance, reversibility vs. irreversibility, etc.) [Hoyningen-Huene, 1995, p. 367]. Feyerabend made the same critical descriptive point concerning revolutions, claiming that he could not find a single historical case in which a crisis was only (or almost exclusively) caused solely by a monistic pursuit of the single dominant paradigm [Ibid., p. 376].

All in all, Feyerabend thought that Kuhn had not given an accurate description of what science is – neither in the descriptive-sociological sense of what happens in those activities that have commonly been called "science", nor in the more normative-philosophical sense of what it is that we commonly value and admire when we call something "scientific". This sense of disappointment found its most acute expression in Feyerabend's taunt that Kuhnian normal science was no different from organized crime:

> According to this [Kuhn's] interpretation it is the existence of a puzzle-solving tradition that *de facto* sets the sciences apart from other activities… But if the existence of a puzzle-solving tradition is so essential, if it is the occurrence of this property that unifies and characterizes a specific and well recognizable discipline; then I do not see how we shall be able to exclude say, Oxford philosophy, or, to take an even more extreme example, *organized crime* from our considerations. For organized crime, so it would seem, is certainly puzzle-solving *par excellence*. Every

> statement which Kuhn makes about normal science remains true when we replace 'normal science' by 'organized crime'; and every statement he has written about the 'individual scientist' applies with equal force to, say, the individual safebreaker [Feyerabend, 1970, pp. 199–200].

Then Feyerabend went on to actually carry out this exercise for a long paragraph, which I will not quote in full. This point was already indicated briefly in Feyerabend's first letter to Kuhn [Hoyningen-Huene, 1995, p. 360], but in the 1970 paper we begin to see the outrageous and effective rhetorician that Feyerabend became in his later writings.

By the time Feyerabend wrote *Against Method* [Feyerabend, 1975a] and *Science in a Free Society* [Feyerabend, 1978], Kuhn was no longer at the centre of his polemical universe. On the one hand he had started feuding with the Popperians (amicably with Lakatos and less so with others), and on the other hand he directed his critique to science itself, or at any rate to the hegemonic aspect of Western science that was tied up with colonial and post-colonial domination of the rest of the world and with the military-industrial complex. But the kind of dogmatic monism that Kuhn regarded as an essential feature of science in its mature and normal state remained an anathema to Feyerabend, and seemingly an exact antithesis of the epistemological "anarchism" or "dadaism" that Feyerabend was articulating in the 1970s and beyond. Pluralism would remain at the core of this new phase of Feyerabend's thinking.

I will not elaborate much on Feyerabend's pluralism in the 1970s and beyond, as that is well-trodden ground [Lloyd, 1987; Preston, 1997, ch. 7; Oberheim, 2006, Part III; Shaw, 2018]. I just want to note that the chief expression of pluralism in Feyerabend's work in the 1970s and beyond was the principle of proliferation: "invent and elaborate theories which are inconsistent with the accepted point of view, even if the latter should happen to be highly confirmed and generally accepted." In *Against Method* he retained his old idea that proliferation increased empirical content, and added the idea that proliferation was "also an essential part of a humanitarian outlook." [Feyerabend, 1975a, pp. 26–27] It is important to recognize that the main point of "anything goes" was the methodological freedom that allowed the challenging of dominant modes of thinking by any plausible method:

> …the first step in our criticism of customary concepts and customary reactions is to step outside the circle and either to invent a new conceptual system, for example a new theory, that clashes with the most carefully established observational results and confounds the most plausible theoretical principles, or to import such a system from outside science, from religion, from mythology, from the ideas of incompetents, or the ramblings of madmen. [Ibid., p. 68]

All this is well-known to anyone familiar with Feyerabend's major works. What I may usefully add is the observation that similar thoughts

were already expressed in Feyerabend's response to Kuhn in 1961/2. Along with Feyerabend's own early work in the philosophy of modern physics, his engagement with Kuhn's work gave Feyerabend an important occasion for developing and articulating his thoughts on proliferation: "The more I think and the more I write, the more reasons I find why scientists should consider alternatives at any time, *and not only in a crisis*." [Hoyningen-Huene, 1995, p. 377]

The Co-existence of Monism and Pluralism

So far I have recounted Feyerabend's critique of Kuhn without indicating whether I agreed with it. Let me now come to the task of evaluating Feyerabend's critique and also assessing the defence that Kuhn gave, or could have given. In the course of this assessment, I arrive at a realization that Feyerabend's pluralism allowed a kind of monism, and that Kuhn's monism required a degree of pluralism. In other words, the clash between Feyerabendian pluralism and Kuhnian monism was not as simple and stark as presented by Feyerabend in his critique of Kuhn.

Let us start by considering a quandary for Feyerabendian pluralism: what should a pluralist think about communities that choose monism as their credo or their mode of operation? A preliminary note, before we tackle the question directly: if we examine Feyerabend's pluralism articulated in the mid-1970s, we find that he was by then thinking more and more in terms of traditions, while in his discussions with Kuhn he had spoken mostly about theories (rather than buying too much into Kuhn's talk of paradigms). Feyerabend's principle of proliferation can and should be extended into an advocacy of the cultivation of multiple epistemic traditions, and respect for them. For example, he famously admired the communist regime in China for restoring legitimacy and authority to traditional Chinese medicine so that it could co-exist as equals with the medical tradition imported from the West [Feyerabend, 1975a, pp. 50–51, 220, 305–306; Feyerabend, 1978, pp. 88, 102–105].

The consideration of traditions, like that of paradigms, invites the consideration of communities. Any pluralism worth its name would cultivate respect for different communities distinct from our own. As Rory Kent [Kent, 2024] stresses, Feyerabend's later pluralism had at its core an advocacy for the autonomy of diverse communities who maintain their own traditions. His earlier theory-focused and methodology-focused pluralism can easily be subsumed under this pluralism of traditions and communities, because theories are developed, and methodologies are used, by communities of people following some sort of tradition. Here an individual may be taken as a limiting case of a small community, inevitably forged within a larger one.

Now, it cannot be denied that human communities are often strongly monist, believing themselves to be superior to other communities, if not the practitioners of the only correct way of knowing and living. This may simply be a fact of social psychology, at least in the stage of development that we humans have managed to reach so far, or possibly it is something deeply rooted in "human nature". Whatever the case may be, a pluralist society does need to deal with monist sub-sections of itself. If we take a broad view on science in its history, we observe various communities of scientists forming, flourishing and declining over time. Most of these scientific communities have been monist in their outlook, and often battled each other for supremacy. In fact, modern scientists are notoriously monist, perhaps nearly as much as religious fundamentalists are. This is not about whether scientists' beliefs are more correct than others', but about how they regard other (i.e., nonscientific) sets of beliefs or ways of forming beliefs.

I cannot see an easy argument based on Feyerabend's pluralism that would forbid communities to be monist. The Feyerabend of 1961/2, the writer of those passionate letters to Kuhn, did have such an argument, based on his Popperian insistence on universal methodology aimed at the increase of empirical content. The Feyerabend of 1975, the author of *Against Method*, could no longer avail himself to that argument, because he would have had to ask himself: why is it always good to increase empirical content? What if there is a culture that values other things more? At least on the surface, it seems that Feyerabend's own position landed him in a place not so far from Kuhn. Feyerabendian pluralism must allow each community to decide to be monist, or not. And if most scientific communities will opt for monism, then we have a picture of science that is not so different from Kuhn's. The only difference would seem to be that Feyerabend prefered to have less of the Kuhnian "normal" state of science in which only one paradigm exists in a given field and the whole community is in agreement. But that comes down to a matter of degrees, since Kuhn of course allowed that there were periods of extraordinary science, with multiple paradigms practiced by distinct sub-communities, each monist in their outlook. And Kuhn also allowed that multiple paradigms within a field may survive in the long run, if they go their separate ways as sub-disciplines, in a process that he compared to biological speciation that produces the "tree of life" with ever-increasing number of branches. So the picture of science given by Feyerabendian pluralism and Kuhnian monism may end up looking not so different from each other after all.

Now let us consider the situation from a Kuhnian starting-point. As Kuhn was at pains to emphasize against his critics, his picture of normal science was not one of dogmatic *stagnation*, but dynamic progress through a single-minded pursuit of knowledge. He extolled the twofold progressivist virtue of monistic normal science: it delivered a great deal

of detailed knowledge framed by the ruling paradigm, and eventually it also resulted in large-scale innovations by precipitating paradigm-shifts. In other words, Kuhn's monism was always oriented toward innovation and progress. Feyerabend stressed that Popperian falsificationism was not incompatible with Kuhn's view of scientific development [Hoyningen-Huene, 2006, p. 628]. Popper, Feyerabend, Lakatos and Kuhn were all agreed that progress was a distinct and positive feature of science.

The difficulty for Kuhn in this context, however, is that Kuhnian monism cannot give the whole picture of scientific progress. This is because innovation requires plurality, at least at some point in the developmental process. This point emerged in various ways in the debates between Kuhn and others. (1) Kuhn's own picture of scientific development requires a contention between competing paradigms in the "extraordinary" phase of science, in order to allow a scientific revolution to happen. Any realistic revolutionary change would have to involve a non-trivial period during which the old regime is competing with the new one. (2) The Kuhnian process of revolution does also require that a new paradigm should be able to arise – but from where? As Feyerabend put the question: "Now if normal science is *de facto* as monolithic as Kuhn makes it out to be, then where do the competing theories come from?" [Feyerabend, 1970, p. 206] I think Feyerabend's answer was that the natural method for this was to maintain a bank of diverse ideas and approaches, from which apt new solutions to difficult problems could emerge. (3) As discussed above, Feyerabend argued that the generation of crisis, which is what creates the need for the new paradigm in Kuhn's view, demanded the existence of competing paradigms already. This is because he thought that a genuine test of a theory, the kind that poses a real threat of falsification, often needed to be launched on the basis of a competing theory. (4) Imre Lakatos [Lakatos, 1970] went even further than Feyerabend, arguing that empirical testing was always comparative between competing theories. According to Lakatos there is no absolute refutation or confirmation, but only a relative judgment of how well different theories do in accounting for a given body of empirical evidence – or better, how well competing research programmes do in eliciting and handling a continual stream of new observations. If that is the case, no theory-testing can occur in a truly monist situation. There must at least be competing versions of a theory in question even within a paradigm, for meaningful testing to occur.

All in all, it seems that normal science, even as Kuhn himself intended it, is a monist enterprise that can only be sustained in a broader pluralistic setup. That is to say, starting from Kuhn's picture, too, we come to the same conclusion as before: there is not such a clear gulf between Kuhnian monism and Feyerabendian pluralism.

Pluralism Beyond Conflict

Now I will try to build on the insights gained in the last two sections, to craft my own proposal for a kind of pluralism concerning science that is compatible with the best aspects of both Feyerabendian and Kuhnian philosophies of science. It will be useful to take the framing of pluralism from my earlier work [Chang, 2012, ch. 5], in which I distinguish "tolerant pluralism" and "interactive pluralism", and consider both in terms of cultivating multiple "systems of practice" in a given domain. Tolerant pluralism consists in allowing multiple systems of practice to exist and flourish, so that each can achieve what it is good at doing and we can collectively enjoy the benefits arising from all of the systems. Interactive pluralism additionally seeks to reap the benefits that can come from different systems of practice interacting with each other (through competition, co-optation and integration).

Tolerant pluralism is compatible with monism present within each system of practice. Benefits of toleration are not negated by monism, even of a dogmatic kind, as long as no system of practice is allowed to suppress or eliminate other systems. Now, making tolerant pluralism fully compatible with Kuhnian thinking does require a renunciation of Kuhn's view that in normal science the dominant paradigm does and should enjoy a monopolistic allegiance from all serious scientists in a field. But I cannot see why Kuhn needed to insist on this "paradigm monopoly" thesis. Tolerant pluralism does not interfere with the necessity and effectiveness of paradigm-based research within each system. All the benefits of monist (even monomaniacal) focus that Kuhnian normal science brings can be enjoyed within each system of practice, as long as no system of practice actively interferes with others. A community of "normal" scientists can function perfectly as Kuhn intended under an overall pluralist regime. What it needs is protection and autonomy, not dominance over a whole field of science. A tolerant-pluralist field of science can easily avoid the pitfalls shown in the work of the Pre-Socratic philosophers as Kuhn saw them, wasting all of their energy in fruitless disputes with each other. Each school can focus on pursuing its agenda in the way it deems best, rather than spending its effort in arguing with other schools. The main point here is that tolerant pluralism can accommodate monism, as long as the monists are prevented from destroying the overall pluralist organization of society. And of course the distribution of resources will need to be determined. But we know how to make such decisions, imperfectly yet reasonably, in a democracy with competing interests.

This will also be a convenient place to admit clearly that Kuhn's historical accounts leave something to be desired. He downplayed the plurality that has actually been historically present in science. Among

the various examples brought up by his critics, the long-running competition between particle-optics and wave-optics comes to mind. Each of these two paradigms produced a significant amount of scientific knowledge, and they never quite entered into the Kuhnian pattern of one paradigm completely dominating the field. Rather, after a long period of competition during which proponents on each side held to their system in a monist way, they both met their demise at the hands of the new quantum-mechanical conception of wave-particle duality. I have discussed a similar yet more complex pattern of competition between five systems of atomic-molecular chemistry in the 19th century [Chang, 2012, ch. 3]. Examples can easily be multiplied. Kuhn's response on this point was disappointing. The long section of "Reflections on My Critics" that is promisingly titled "Normal science: its retrieval from history" [Kuhn, 1970c, pp. 249–259] hardly touched upon this crucial descriptive point.

So much for tolerant pluralism. What about interactive pluralism, which I consider the higher form of pluralism that we should aspire to reach? I think Feyerabend's early debates with Kuhn can give us some useful pointers here, perhaps better than his later and more flamboyant arguments can. When we consider interactive pluralism, I think the limitations of Kuhn's thought start to show themselves and some of Feyerabend's ideas reveal their true promise. Take Feyerabend's critical discussion of Kuhn's view of the demise of classical physics. He pointed out that in the middle of the 19th century physics had "at least three different and mutually incompatible paradigms": mechanics, thermodynamics, and electrodynamics. Anticipating Kuhn's view that these essentially constituted non-interacting and separate sub-fields within physics, Feyerabend argued: "Now these different paradigms were far from 'quasi-independent'. Quite the contrary, it was their *active interaction* which brought about the downfall of classical physics." For example, it was the tension between Maxwellian electrodynamics and Newtonian mechanics that gave rise to the special theory of relavitity. [Feyerabend, 1970, pp. 207–208]

The clue that we can take from Feyerabend here is that what we require for true interactive pluralism is for each system of practice to retain autonomy but eschew dogmatic monism, allowing for productive interaction. Even if practitioners believe that their own system is superior, they must not believe it in such a way as to make them regard other systems as not worth interacting with. It is a limitation of Feyerabend's pluralism that its main focus was on critical, even hostile, interaction. But in Feyerabend's work we can also find various subtle clues for more cooperative interactions between systems. His discussion of Galileo's defence of Copernicanism showed clear awareness that the new astronomy and physics needed to be grafted onto the prevailing Aristotelian physics and metaphysics [Feyerabend, 1975a, chs. 5–9]. He advocated medical pluralism with the possibility of syncretism in mind. And listening to the "ramblings of madmen" was about co-opting some ideas to help

our own systems, rather than the wholesale adoption of the madmen's way of thinking and living.

In closing, we must address the question of purpose. What was pluralism intended to achieve, in Feyerabend's view? It is useful to recall how Feyerabend ended his playful and disdainful parallel between normal science and organized crime:

> He [Kuhn] has failed to discuss the *aim* of science. Every crook knows that… he wants one thing: money. He also knows that his normal criminal activity is going to give him just this… Money is his aim. What is the aim of the scientist? And, considering this aim, is normal science going to lead up to it? Or are perhaps scientists (and Oxford philosophers) less rational than crooks in that they are 'doing what they are doing' without regard to an aim? [Feyerabend, 1970, p. 201]

It is not true that Kuhn didn't discuss the aims of science, but perhaps his answer (problem-solving ability, most of all) was not satisfactory. What about Feyerabend's own answer? In *Against Method* he seemed to set his sights on no less than general human flourishing – laudable, but ill-defined. Similarly with his "plea for hedonism", which declared: "the happiness and the full development of an individual human being is now as ever the highest possible value." [Ibid., pp. 209–210] His philosophy was to contribute to "preventing our species from stagnation" [Ibid., p. 210]. No more helpful were his declarations in the paper of 1975 provocatively titled "How to Defend Society against Science", ending with "We want to liberate people *so that they can smile*." [Feyerabend, 1975b, p. 8]

Here again it may be more instructive to go back to the Feyerabend of 1961/2. I have noted the increase of empirical content as an immediate objective articulated by Feyerabend then. But we might ask why the increase of empirical content is so important. Here I want to propose an unconventional answer: Feyerabend was driven by realism, of an empiricist sort (see [Chang, 2021] for further thoughts on Feyerabend's realism). Of course, what he advocated was not the monist kind of realism usually meant by the so-called scientific realists or metaphysical realists, but a realism still based on the idea that science should do its best to learn about reality. Feyerabend saw each theory or paradigm as a vehicle to guide us in our inquiry into reality, a fallible vehicle that may need to be discarded: "I quite agree [with Kuhn]: there is never anything like research without a paradigm. This is the reason why one should always cultivate alternatives in order to be able *both* to drop a falsified theory, *and* to continue *realistic* research into the properties of the universe." [Hoyningen-Huene, 1995, p. 369]. For Feyerabend pluralism was a realist doctrine, aimed at maximizing our learning by allowing ourselves to investigate reality freely using any and all possible frameworks of inquiry.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 158–174
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 158–174
DOI: https://doi.org/10.5840/eps202461348

TRUTH OVER DEMOCRACY OR DEMOCRACY OVER TRUTH? REFLECTIONS ON RORTY AND FEYERABEND

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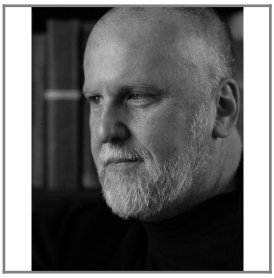

Paul Feyerabend and Richard Rorty were both famously suspicious of an objective concept of truth, in part because they shared the suspicion that concepts like truth and reason were irrevocably anti-democratic. As Feyerabend saw it, an overreliance on a naïve objectivist conception of truth and rationality encouraged a "tyranny of truth", one according to which science should have an overly privileged role to play in deciding what society ought to do. Similarly, Rorty believed truth was a concept ill-suited for democracy. In this paper, I offer some brief reflections on the view that political truth is ill-suited for democratic politics. I argue that Rorty and Feyerabend are right that the concepts of truth and knowledge have political meaning, and that as a result, the question of "who knows" (and who doesn't) are partly political questions. But while Feyerbend was right to think we cannot give priority to the epistemic over the political in democracy, neither, I conclude, should we reverse that priority.

Keywords: Democracy, Feyerabend, Rorty, Truth, Political Epistemology

ИСТИНА ВЫШЕ ДЕМОКРАТИИ ИЛИ ДЕМОКРАТИЯ ВЫШЕ ИСТИНЫ? РАЗМЫШЛЕНИЯ О РОРТИ И ФЕЙЕРАБЕНДЕ

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Пол Фейерабенд и Ричард Рорти, как известно, с подозрением относились к объективной концепции истины, отчасти потому, что разделяли мнение о том, что такие понятия, как истина и разум, являются необратимо антидемократическими. По мнению Фейерабенда, чрезмерное доверие к наивной объективистской концепции истины и рациональности способствовало «тирании истины». Согласно ей наука, рассматриваемая как та, что имеет наилучший доступ к тому, что объективно истинно, должна играть чрезмерно привилегированную роль в принятии решений о том, что должно делать общество. Точно так же Рорти считал, что истина это концепция, плохо подходящая для демократии, и эта тема возникает на самой первой странице его посмертной книги «Прагматизм как антиавторитаризм». В этой статье я делюсь своими соображениями по поводу того, что политическая истина плохо подходит для демократической политики. Я утверждаю, что Рорти и Фейерабенд правы в том, что понятия истины и знания имеют политическое значение, и что в результате вопрос о том, «кто знает» (а кто нет), отчасти

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является политическим вопросом. Но хотя Фейербенд был прав, полагая, что при демократии мы не можем отдавать приоритет эпистемическому перед политическим, я также заключаю, что мы не должны отказываться от этого приоритета.

Ключевые слова: демократия, Фейерабенд, Рорти, истина, политическая эпистемология

The concept of objective truth – the idea that propositions are true independently of human attitudes about them – has long been associated with absolute political authority. The roots of that association range from Jesus's remark in John 14:6 that "I am the way, the truth, and the life, no one comes to the Father except through Me" to Bacon's even more succinct observation that knowledge is power. But the most direct connection is found in Plato's argument that only those who know the truth should rule. Plato's masterpiece presents one long argument for the idea that only certain experts can know what society ought to do. These experts, whom Plato conveniently identified as male, highly-educated philosophers like himself, are therefore the best fit to rule, and the harmonious society is one in which they do.

Feyerabend was famously suspicious of an objective concept of truth, in part because he shared the suspicion that concepts like truth and reason were irrevocably anti-democratic. As he saw it, an overreliance on a naïve objectivist conception of truth and rationality encouraged a "tyranny of truth", one according to which science – seen as those who have best access to what is objectively true – should have an overly privileged role to play in deciding what society ought to do [Feyerabend, 1987, pp. 4–5, 54].

Like Feyerabend, Richard Rorty was also famously critical of the concept of objective truth. And like Feyerabend, that suspicion, at least in part, was based on his view that the concept was ill-suited for democratic politics – a theme that emerges from the very first page of his posthumous book *Pragmatism as Anti-Authoritarianism*.

I want to offer some brief reflections on the view, shared by Rorty and Feyerabend, that political truth is ill-suited for democratic politics. By "political truth" I mean the idea that some political propositions – or propositions about what society ought to do – are objectively true or false. By "democratic politics" I mean inclusive, representative and respectful deliberation between free and equal persons about what political propositions to accept – that is, about what society ought to do. Democratic politics in this sense is a kind of practice, or way of interacting politically, which can take place in, or out of, formal democratic arrangements.

I'll be concerned with three questions in particular. Each question touches on one aspect of truth's relationship to democratic politics:

(1) Are authoritarian, or non-democratic politics justifiable simply on the basis of some political propositions being true and others false?

(2) Does it matter to political practice whether we have truth as a goal of inquiry?
(3) Are judgments about who knows political judgments?

After some brief discussion of (1) and the historical connections between truth and authoritarian, anti-democratic ideas, I'll turn to question (2) and Rorty's arguments in *Pragmatism as Anti-Authoritarianism* for a negative answer. I'll argue that these arguments, while unsuccessful, nonetheless remind us that we cannot ignore what I'll call truth's political meaning. Moreover, they indicate that our answer to (3) must be in the affirmative. In this sense, Feyerband was right to think we cannot give priority to the epistemic over the political in democracy. But neither, I conclude, should we reverse that priority.

According to Plato, just as a teacher's authority over a student and a parent's authority over a child could be said to come from their superior knowledge, so the authority of rulers too must come from their superior political knowledge. And one has such knowledge, Plato seems to think, when and only when one understands what is best for society. Therefore, the proper rulers (or "Guardians," as Plato called them) must be trained not only to recognize what is best for society but also to see their own interests as coextensive with those of the state as a whole. In Plato's view, the just state was like the person who controlled his appetites (i.e, the bulk of the population) and his temper (the warriors) by keeping them under the wise control of ideal reason (the Guardians or rulers).

Perhaps the most familiar, and dominant form of the Platonic argument is its Christianized version: God knows how we should live and organize ourselves, and only the chosen few can speak for God. Plato and his Christian followers were keen to emphasize that neither God nor the Guardians *made* the political truths true; God, being you know, *God*, is just perfect detector of them. Plato, to put it differently, was the paradigmatic realist about truth: he thought that what was true was independent of what we know. But one can also connect political truth with authoritarianism via *anti-realism* as well. For one can say political truths are *made* true by God / Authority / The Party or whomever. The Law-Giver is also the Law-Maker. Underlying the idea that God makes the political truth is the metaphysical assumption that there are no laws without a Law-Maker. Thus, there are no truths about what society ought to do, unless there is a God that makes those laws – this, as Plantinga famously noted, is a form of anti-realism, or the idea that all truths are knowable, and depend on at least one believer, and are in that sense not objective. For the theistic anti-realist about political truth, as the trope goes, if God died, or had never existed, everything would be permitted. Or more accurately, there would be no political truths or falsehoods.

Both the realist and anti-realist versions of epistocracy have been surprisingly resistant to attempts to bury them in the dustbin of history, despite there being excellent, even obvious reasons, both political and

theoretical, to reject them. The Platonic view that "those who know should rule" is the most famous version of what is sometimes called "epistocracy". Other defenses include Mill's infamous view that the votes of the educated should count more than the votes of the uneducated, or Brennan's more recent argument that uninformed citizens shouldn't have authority over political decision-making.[1] As David Estlund has pointed out, however persuasive these views may or may not turn out to be, they all must show why they don't rest on a fallacious inference [Estlund, 2008, p. 3]. As Estlund puts it, just because you know more than me doesn't, all by itself, make you the boss of me. We generally feel that something else needs to be said – some way of showing that, in some particular cases, it is just for the expert to be the boss.

Politically speaking it is unlikely that even Plato's Guardians, or priests speaking for God, would always be committed to act on their knowledge of the plainly political truths (the political propositions) and only that knowledge – as opposed to their own interests. Indeed, Socrates himself seemed skeptical about whether anyone would really have the wisdom to do such a thing.[2] And history has certainly not proved the contrary. The enduring stains of colonialism and slavery, for example, paint a bloody picture of how those that profess the self-evidence of equality more often than not act for the sake of their own comfort and domination. And saying, "Well, sure, but putting history aside, *in principle* if the wise had pure motivations, they would be the ones to listen to," is generally what it sounds like: just a way to put the history aside and ignore its central lesson: that even if the Guardians are uncorrupted now, they will become corrupted later.

So both realist and anti-realist views of truth have been used by philosophers to justify authoritarian politics. But in both cases, the inference from "there are political truths" to "therefore those who know them should rule" is fallacious without further premises. And that means the association of the idea of political truth and authoritarian, anti-democratic politics is not a conceptual, or logical connection. It is historical, and therefore carries with it an association of what I'll describe below as political meaning. By saying this, I don't mean to imply that the connection between the concept of political truth and authoritarianism is weak – I mean to imply the reverse. *It is because the associations between truth and authority are matters of historical association* that make them so strong and influential. That's why the Platonic argument and its theistic alternative have shaped our theorizing about truth and politics for the last millennia and more. These political connections have encouraged the *association* of the very idea of truth (under any conception) with authoritar-

[1] See Mill's "Considerations on Representative Government" [Mill, 1998] and [Brennan, 2017]. I don't mean to imply that either author rejects the idea that truth has democratic value, or rejects democratic politics in the ways that Plato clearly did.

[2] Crito, 47c9–d2. See also [Estlund, 1993, pp. 80–81].

ianism.[3] This association helps explain why, as Helène Landemore writes, truth has "a bad reputation in political theory" [Landemore, 2013, p. 224]. And that's no surprise: Appeals to "the will of God" or the way that "Reality is and must be" have been used as cover by Kings and dictators for as long as there have been Kings and dictators. As Feyerabend put it, these ideas have been used to "make Western expansion more intellectually respectable." [Feyerabend, 1987, p. 5]

In his last, posthumous book, Rorty argues that the historical association between truth and authoritarianism requires those who care about democratic politics should heed a lesson he attributes to Dewey. The Deweyean lesson about such politics Rorty is keen to impart, is that, "the romance of democracy… required a more through-going version of the secularism than either Enlightenment rationalism or nineteenth-century positivism and achieved. It requires us to set aside any authority save that of a consensus to our fellow humans [Rorty, 2021, p. 2].

This was a theme throughout much of Rorty's celebrated career. As he once put it, while the "ideal liberal society" celebrates liberal values like open-minded,

> This open-mindedness is not fostered because, as Scripture teaches, Truth is great and will prevail, nor because, as Milton suggests, Truth will always win in a free and open encounter. It should be fostered for its own sake. *A liberal society is one which is content to call "true" whatever the upshots of such encounters turns out to be*. That is why a liberal society is badly served by an attempt to supply it with "philosophical foundations" [Rorty, 1989, p. 52].

One way to interpret this remarkable passage would be read it as endorsing a particular theory of truth for political judgments or beliefs. This is not, I think, Rorty's intended interpretation, but it is worth examining. Consider this line of reasoning:

Democratic decisions are decided by votes. This means that which political judgments are correct are decided by votes as well as the kinds of democratic procedures that precede votes, such as public forums and debates. There are no independent standards beyond democratic procedures to determine what's true or false in democratic politics. To think otherwise is to long for foundations that don't exist and runs contrary to the essential spirit of democracy, which is that democratic procedures need no foundation.

According to this line of thought, there is no truth about what we in a democracy should collectively do other than that reached by democratic procedures. It's democratic procedures all the way down. In short:

[3] See Republic, 412b and Annas, 1981, An introduction to Plato's Republic, pp. 101–102 on this point, as well as the Republic, I 341c4–342e.

Non-Independence (NI): there are nothing beyond democratic procedures that makes plainly political judgments arrived at by such procedures true or false.

This may or may not be a theory of truth for every judgment with political meaning. After all, (NI) is silent about whether (a) there are truth-apt political judgments – plainly political or otherwise – that *aren't* arrived at by democratic procedures and (b) if there are, what would make such judgments true. Nonetheless, it is tempting to read the advocate of (NI) as holding that the truth of what I've called political propositions *is* constructed out of democratic procedures, in particular, votes.[4] For example:

NIT: The political proposition that p is true if and only if that proposition is endorsed by the majority of voters.

As I'll explain below, it is clear that Rorty himself would not have endorsed this theory – which is a good thing, because it not even a little bit plausible. The basic problem is that a proposition being endorsed by voters (even all the voters not just a "majority") is neither necessary nor sufficient for its being true. It is not *necessary* because democratic procedures needn't be adopted by democratic means. Take voting itself: a society might adopt voting as a form of decision-making and hold from the get-go *that every adult citizen should be able to vote*. Moreover, they might arrive at that view without any discussion, deliberation, or debate. They might simply assume it to be correct, perhaps holding it as "self-evident". The proposition that every adult citizen should be able to vote is political; and it is, I submit, true. However, it wasn't, on our scenario, arrived at by voting.[5] Indeed, the problem is a general one: there are many political propositions we arrive at, including judgments about which democratic procedures to adopt, that are not, nor could not be, arrived at by democratic procedures, no matter how wide and inclusive a definition of "democratic procedure" one might have. For it is a plainly political question whether, and how, the color of one's skin, age, gender, religion, ethnicity, or country of origin is politically relevant, and it is likewise a political decision how and to what extent such facts are relevant. We come to the political table with beliefs about such matters, and they shape the judgments we make about the procedures themselves. And

[4] A view sometimes suggested. [Rawls, 1980], but later rejected, by Rawls [Rawls, 1996]. Habermas is sometimes associated with "consensus" views of truth, although he is at pains in later work to distance himself from them.

[5] Proof: Let P be the true proposition that every adult citizen should be able to vote. Assume P was never voted on. NIT entails that If P is true, then P is endorsed by most voters. The contrapositive of which is if it is not the case that P is endorsed by most voters then it is not the case that P is true. From this we can conclude that either P is neither true nor false or it is false – contradicting the plausible assumption that P is true.

it seems likely that some of those beliefs, and the judgments we make in light of them, can be true – and false.

Being endorsed by the majority of voters is also not *sufficient* for the truth of a political proposition. Consider, for example, a democracy that votes to elect a leader who campaigns on an explicitly anti-democratic agenda – namely, that if elected, he will abolish the legislature and make laws by fiat and declare himself above the law. Suppose, for the sake of example, that the procedures used to determine the outcome (voting, but in addition, the flow of debate and the conditions of information) are democratic and fair by whatever standards you wish. If so, then, according to (NIT) not only is it true that this is what the society should collectively do, but also that we can't actually entertain the idea that it is not. For what we should collectively do is, by definition, determined by the procedure and the procedure alone. Advocates of (NIT) might allow that the outcome is morally problematic, but they must deny that it is politically problematic. But absent some view of political judgment that allows for this, that seems both a spurious distinction and a bizarre one.

As I indicated above, Rorty's own views on these matters are more complicated than the simple-minded NIT. He carefully says (in the above quote) that democracies are content to *call* true whatever judgments result from free and open encounters – that is, from fair democratic procedures. He does not say they *are* true as a result of that fact. In Rorty's mature view, the most basic reason to free democratic politics from talk of truth is that it adds nothing but historical baggage. What point there is to the notion can be explained without appealing to any particular theory of truth's nature.

Rorty recognized that the concept of truth, or the word "true", serves several different functions in our cognitive life. It can act, for example, as a term of endorsement, as when we compliment someone's judgment by saying it is true. We can also use it, as deflationists are keen to emphasize, as a device for generalization, allowing us to say, e.g. that "Everything S says is true" without having to repeat everything S ever said. And Rorty acknowledged that "true" has a "cautionary use" as well, or "the use we make of the word when we contrast truth with justification and say that a belief may be justified but not true" [Rorty, 2021, p. 51]. Rorty took the cautionary use to have *political* value, but it wasn't a value we needed to explain with a theory of truth in democratic politics. We can concede the normative use of the word without having to say much about truth itself because while the cautionary use is consistent with still explaining its normative force by way of the concept of justification.

For Rorty, this conclusion fell out of what he often called his "grounding premise", namely that "you cannot aim at something, cannot work to get it, unless you can recognize it once you have got it… [Rorty, 2021, p. 48]. He adds that, "the only difference between truth

and justification which makes… a difference is, as far as I can see, the difference between old audience and new audiences" [Ibid., p. 52]. As a result, there is no need for a philosophical theory of truth any more than there is a need for a theory about the nature of danger. "The principal reason we have a word like "danger" in the language is to caution people" [Ibid.]. Likewise, Rorty claims, the reason we employ the cautionary use of "true" is that future audiences "may not be able to justify the belief which we have triumphantly justified to all the audiences we have encountered" [Ibid.].

As I understand him, Rorty's point here is that while we use "true" normatively, the source of the normativity involved stems from the concept of justification. And, he adds, "once one has explicated the distinction between justification and truth by that between present and future justifiability, there is little more to be said" [Ibid., p. 53]. As a result, Rorty rejects a main thesis of this book that the goal of having true beliefs has an important role in democratic politics:

> I know how to aim at greater honesty, greater charity, greater patience, greater inclusiveness and so on. I see democratic politics as serving such concrete, describable goals. But I do not see that it helps to add "truth"… to our list of goals, for I do not see what we shall do differently if such additions are made [Rorty, 2000, p. 7].

Rorty is clearly right that, "Seek to believe what is true!" is as pointless advice as, "Seek to be happy!" But that hardly entails that we cannot seek to have true beliefs, any more than it means we can't seek to be happy. We seek happiness and truth by pursuing that which reliably leads to them. In the case of happiness, that might mean pursuing having meaningful relationships or a satisfying job, among many other possibilities. If the world cooperates, and we work hard, these are likely to lead to greater happiness – or so we hope. In the case of true belief, it means pursuing reasons and evidence – justification for our beliefs. Again, if the world cooperates, and we work hard, reasons and evidence lead to more true beliefs than false ones.

Rorty, however, was suspicious of the idea that we should define a belief's being justified in terms of its being likely to be true. To do so is to fall back into the sin of trying to ground our practices on concepts like truth. In his view, the correct approach was to concede a kind of "ethnocentrism" about justification, according to which what is justified is a matter of how we "Western liberals, the heirs of Socrates and the French Revolution, conduct ourselves" [Rorty, 2021, p. 76]. Ultimately, he seemed to think, we shouldn't add "truth" to our list of goals because (a) there are historical connections between the concept of political truth and authoritarianism; and (b) adding truth as a goal would make no difference to our political practice; the question of whether our political judgments are true always ends up turning into the question

of whether we can justify those judgments to ourselves and the audiences around us.

I am not convinced. Indeed, I think the concept of truth – and in particular, the idea that we should pursue true judgments in politics – does make a difference to our political practice. Or so I will now argue.

Imagine a politically engaged community – call them the "Twitbookians" – whose political discourse is governed by just one rule:

Rule of Conformity: Say (or post) only those political claims that conform to the commitments of your political allies.

In practice, that means posting what will be liked (or at least not censured) by your friends and potentially disliked by your opponents. For the Twitbookians, it is *correct* to make a political claim, in the only sense they are responsive to and motivated by, when and only when it meets those conditions – when it follows the Rule of Conformity.

We can follow rules while not knowing we are doing so. Indeed, we can follow rules even while being mistaken – i.e. having false beliefs – about the rules which rules we are actually following. You can, for example, follow certain rules of grammar even without knowing what they are or being mistaken about what they are. So let's imagine that most Twitbookians are unaware they are following the Rule of Conformity in their political discourse; they are ignorant of how that discourse really works.

It is easy to imagine that the Twitbookians' ignorance of what motivates them doesn't diminish or undermine the extent of their political commitments. Twitbookians are still committed to their political views, in that they are willing to act on them and speak on their behalf. They even defend their political judgments as "sincere," and "true" and insist they're concerned with "evidence" and "facts" when they consult sources of information about politics. But the only sources they consult are those that conform to their partisan preferences, since using such sources makes it more likely they will garner likes from their allies. In so doing, they describe themselves as following the evidence, since they know that evidence is a guide to what's true. But Twitbookians aren't typically ever motivated by, or responsive to, the actual evidence and facts, save where it helps them abide by the Rule of Conformity. They are guided only by what their side likes and what it doesn't. In short, truth isn't a value in their political discourse. They are blind to the norms that really move them, chasing the shadows cast by the fires of their commitments on digital cave walls.

Our little parable raises an uncomfortable thought: perhaps we are all Twitbookians. The fear that we are Twitbookians is the fear that truth really has no role, not only in democratic politics, but in politics generally. And it gets to the heart of Rorty's position. For the Twitbookians, "justification" is going to mean showing that you are in line with the commitments of your fellow partisans. This is how Rorty sounds when he says we

have to concede a kind of "ethnocentrism" about justification, according to which what is justified is a matter of how we "Western liberals… conduct ourselves". Our best social hope is to be better, more inclusive Twitbookians, but Twitbookians, Rorty seems to be saying, we shall remain.

I'll lay my cards on the table: I think it is politically important that we look for more than this – certainly more than what the tradition of Socrates and the French Revolution can give us, but also more than an ethnocentric theory of justification can give us. That's because such a theory isn't a theory of justification but a theory of raw *persuasion*. Rorty is right that we can't open the door and march out and pursue true beliefs directly. We can only pursue having true beliefs indirectly – by way of pursuing *evidence* that supplies us with reasons for belief. Indirectly or not, however, it is truth that supplies the point of this enterprise, and what distinguishes it from merely pursuing that which will rally others to our cause, or flatter our opinions. It is also what distinguishes it from the practice of answering objections simpliciter – that is, from the practice of simply saying that which silences your opponent, or gets them to nod in agreement. Reasons are important in and of themselves both epistemically and politically. But reasons for a belief or judgment are *reasons* precisely because they are not mere means to their own end; they are means to the further end of truth. Thus justification (reason-giving) is distinct from truth precisely as a means is distinct from its end.[6]

Moreover, by not valuing truth, Twitbookians are unable to realize other values essential to democratic politics. One of the simplest of these values is the idea of political progress itself. Democratic politics as I've defined it – as politics that favors inclusive, egalitarian deliberation about common problems – arguably presupposes that there can be such progress. For rational engagement in such politics presupposes that collective deliberation can help us do better than we have done before, to arrive at better, more just solutions to societal problems. In hoping for progress, we hope our political commitments arc in that direction. Yet the idea of progress is empty without a standard by which to measure it, and the Twitbookians are numb to any standard but what their partisan community likes and what it does not. Should their partisan communal preferences change, what claims count as correct or incorrect will also change – no matter what those changes may happen to be. For the Twitbookians, a change from one political view to another will only ever be that – a change. "Progress" is an illusion.

Yet the poverty of Twitbookian political life goes deeper still. Consider the democratic value of respect. A presupposition of democratic politics is recognizing that other persons are all owed a certain basic or "recognitional" respect – the kind of respect we pay someone just be-

[6] For similar remarks, see Engel's contributions in [Rorty and Engel, What's the Use of Truth?, 2007].

cause they are a *person*.[7] When we think of basic respect for persons, we are typically thinking of moral respect – that is, respect for someone as a potential moral agent. To give a fellow citizen basic *epistemic* respect, on the other hand, is to treat them as having epistemic agency. It is to treat them as a fellow reasoner, as someone who has the capacity to make up their own minds, to determine not only what they are going to commit to, but what they are going to *believe based on reasons*.

Twitbookians don't exercise their epistemic agency, they aren't motivated to exchange epistemic reasons; they exchange, at most, practical reasons in the form of "likes", "dislikes", posts and counterposts of their own, all of which follow the Rule of Conformity. They may not even have stable political beliefs. For all their passionate commitments, they fail to live up to a presupposition of democratic politics because they fail to show any basic epistemic respect to each other. How can they? Twitbookians don't even have basic epistemic respect for themselves.

Where basic respect goes, so does basic equality. For to participate in democratic politics means treating others as equals, in the sense that each person is owed an equal amount of basic recognitional respect, both morally and epistemically. But Twitbookians, in lacking such respect for each other, lack also a sense of equality. By failing to give reasons to believe those propositions they commit to, Twitbookians fail to treat those on the other side as equal epistemic agents – as capable of making up their minds about what to believe based on reasons. At best, one's opponents can be regarded as subjects for manipulative conversion. They are a tool to be used, a sheep to be herded, or a child to be led. They are not a fellow epistemic agent.

In sum, Twitbookian politics is not guided by basic democratic values. To be sure, there is nothing to prevent the Twitbookians from having a democracy in the *formal* sense – that is, by having a system of government where certain decisions are decided by vote. We can imagine they have a representative democracy similar to our own. But it is difficult to see how their society, even if it is democratic in the formal sense, could practice democratic politics in the sense of the term I've been employing here. Put somewhat differently, their democracy, if they have one, is not deliberative – not functioning as a space of reasons where collective problems are addressed via an exchange of reasons and not merely through the use of power – particularly the kind of power that comes from manipulating the strings of conformity and commitment.

[7] Here I am only talking about recognitional respect towards persons, and leave open whether we can have such respect for other things, such as paintings or performances. See Stephen L. Darwall, *The second-person standpoint: Morality, respect, and accountability*. Harvard University Press, 2006. For arguments supporting the importance of respect for persons in democratic politics, see [Larmore, The Morals of Modernity, 1996].

The parable of the Twitbookians – and the rise of authoritarian far-Right politics around the globe – suggests that Rorty is mistaken that adding truth to our list of goals makes no political difference. There *is* a difference, and a very notable one, between a politics that has true beliefs as one its goals and a politics that only says it does. The Twitbookians, for all their talk of truth and evidence, don't care about such things, and their politics will reflect that fact – it will be motivated by issues of conformity and power alone, and the idea that some people may be right, and some may be wrong, will be irrelevant otherwise. Put differently: the very fact that we recognize ourselves in the Twitbookians – and are repulsed by that recognition – is what tells us that there is a difference between democratic politics involving truth, and politics that only pay lip-service to that idea.

Let's pause to take stock. Our reflections suggest that the following answers to our first two questions:

(1) Authoritarian, or non-democratic politics is not justifiable just on the basis of the very idea that some political propositions are true or false.

(2) Contra Rorty, having truth as a goal does make a difference to political practice. Arguably, a society that lacks that goal – that is neither motivated by, nor responsive to, the value of truth – is less democratic just on that basis.

I now want to turn to the third question, (and the one that arguably particularly concerned Feyerabend.

(3) Judgments about who knows are often political judgments.

In the space remaining, I want to argue that (3) is true, but that we can grant this fact without having to abandon either (1) or (2). The key point is understanding what it means to talk about a judgment as political. Not surprisingly, there is more than one sense of the word.

One use of the term is the one I've employed when defining political *propositions* as propositions *about what society ought to do*. Call this the narrow sense of the term. Thus, political *judgments* in the narrow sense are those that explicitly concern what society ought to do – which have political propositions in the narrow sense as their content. But many of the judgments and questions we argue about are not political in this narrow sense. Consider judgments like *carbon emissions contribute to climate change*, and *mask mandates lower the rate of infection*. Judgments like these are about the physical world. They don't employ obviously normative or "ethical" concepts, and they aren't about a political system of structure. But they are clearly the subject of political debate. So too with judgments of history, or economics, or almost anything else – such judgments can become the topic of political debate and discussion, and can have political consequences, however pure (or impure), our moti-

vations might be in making them. As Orwell illustrated in *1984*, even a claim like 2 and 2 make 4 could, in the right circumstances, play a political role. For the sinister antagonist of the novel, the leader O'Brien, that judgment comes to signify a challenge to the absolute power of The Party. The affirmation of it by the book's protagonist is therefore an overtly political act.

In short, any judgment can *function* politically, by taking on *political meaning*. When that happens, a judgment becomes political in what I'll call the *wide sense* of the term. The issue of whether a judgment is political or not in this sense arises frequently in many actual political debates, particularly those concerning whether certain court decisions or specific judgments made by scientific bodies are political or not. That such concerns arise, and arise so frequently, reflects the fact that the concept of the political itself, like other political concepts, is fluid and "essentially contestable." [Gallie, 1955–1956]

As I'll understand the term here, essentially contestable concepts are such that debates over their semantic analysis – debates over their extension or the property they denote – are entangled with debates over their political meaning. This entanglement happens when a particular conception of what the concept denotes becomes associated with particular ideologies or political agendas. Concepts like liberty, equality, and class are famously open to intelligible yet divergent extensions, attachment to which is just as famously driven by divergent ideologies. But these are hardly the only examples – as debates over the concept of marriage or even more recently the concept of a woman, illustrate. In all these cases, political debate is debate over which way to extend or limit the relevant concept, and different conceptions (that is, different beliefs about) what the concept denotes are associated with distinct ideologies. Likewise, the question of whether a judgment is political is contestable in just this way – which is exactly what we should expect if we agree with Carl Schmitt that the concept of the political is itself political [Schmitt, 2007, pp. 30–32].

Again, judgments become political in the wide sense when they take on what I've called political meaning. Political meaning is not a kind of propositional content; it is not a kind of literal meaning. Rather, the political meaning of something is the result of how it is perceived. And thus the political meaning of a judgment or claim for some community *is the sum of its perceived contributions to politics relative to that community.* This includes its perceived epistemic effects on power, the convictions and identities it is understood as expressing, and the actions it potentially guides. To grasp a judgment's political meanings is to understand how it is perceived to contribute to politics; to understand a judgment *as* political is to recognize it as having at least one political meaning in the aforementioned sense.

Like other kinds of social meanings, political meanings are not optional [Lessig, 1995].[8] By this, I mean that the political meaning of a judgment is *not* something that the agent can simply decide to forgo. That's because a statement's political meanings, at least in most cases, are largely external to the *agent's* beliefs and intentions. Yet they are not independent of the beliefs, commitments, and actions of the *community*, precisely because a claim's political meaning is *constituted* by the perceptions of the community. Those perceptions include the post's perceived epistemic effects, the online and offline actions it is perceived to license, and the attitudes it is assumed to express.

With these distinctions in hand, let's return to (3), the claim that judgments about who knows are often themselves political. This is most obvious when the judgment in question is about who knows the political truths in the narrow sense – that is, who knows what society ought to do. For even if Plato was right, and there could be political experts who can know the truth about what's best for society as a whole better than the rest of us, *who is to say who they are*? How would we agree on who knows the most about what is in everyone's best interest – especially given that, as Plato conceded, there are bound to be some who pretend to have knowledge they do not? This is what Estlund has called the problem of "knowing the knowers," and it seems to be an in-principle problem for implementing the Platonic position right from the get-go. [Ibid., 84ff] The point is not that political truth can't be known, but that there is no apolitical way of determining who those knowers are. Any judgment that one knows what is in the best interest of society is inevitably open to the charge of bias, that one is making the claim not out of concern for society's interest but out of concern for one's own interest. As a result, such judgments come to have political meaning, and are therefore almost inevitably going to become political in the wide sense of the term.

A similar result follows even when we turn from asking who knows the answers to narrowly political questions to who knows answers to scientific questions. The two issues are, of course, often connected. That's because thinking about what society ought to do – that is, in reflecting on what political judgments to make in the narrow sense, we typically have to aver to experts of various sorts – engineers, climate scientists, military generals etc. We often hope that the opinions and judgments of such experts will be apolitical. And we will be right in one sense – their scientific judgments about the natural world aren't political in the narrow sense. But they may well be – like it or not – political in the wide sense. They can have political meaning.

[8] Haslanger: "The point of saying that an action has a social meaning is to understand it as having a significance by virtue of collective understandings, not just the personal meaning given to it by the agent (or patient)." [Haslanger, 2014, p. 13]

To see this, consider a climate scientist testifying in front of a committee of elected officials whether climate change is real. She says it is and adds that she is only stating what the evidence clearly illustrates. In response, a committee-member who is a climate skeptic retorts that the "witness is playing politics" since the evidence (he says) is "inconclusive." He therefore rejects her as an expert, saying "she doesn't know what she is talking about".

Let's stipulate that the official is mistaken. Our scientist does know what she is talking about. And climate change is real. Nonetheless, whether we like it or not, the question of whether it is real, and the question of who knows whether it is real, have come to have political meaning in U.S. culture. In most contexts, and especially during a contentious political hearing, the judgment that S knows that climate change is real has political meaning, since it will contribute to the political debate surrounding what to do about climate change. Does that mean we must agree that the official is right that the scientist is "playing politics?" Of course not. But it does mean that judgments about who knows can have political meaning *even if* their truth does not depend on anything other than how the climate actually is.

So the judgments we make about who knows and who doesn't are often political in the wide sense. They can, and often are, infused with political meaning. That in turn means that we can't simply hand over what society ought to do to experts, scientific or otherwise. We can't simply ask the experts what the political truths are. We can't do that not because these experts aren't really experts at all in their respective fields. We can't do it because the question of who knows the political truths in the *narrow sense* is itself a political question *in the wide sense*. That is, it will be a question debated because it will rightly be perceived to have political meanings and consequences. And this is why Estlund's problem of "knowing the knowers" is a political problem, not just an epistemological one. The political problem is the problem of being able to *justify,* in the face of public disagreement about the matter, why only these particular people know what's best. Saying, "Well, THEY know they know," will hardly stifle any doubts. We need some sort of independent political or legal mechanism to help us *collectively* identify and legitimate who knows and who has the authority to rule.

Yet the truth of (3) should not convince us that political truths in either the narrow or wide sense are "unknowable." Nor should it cause us to give up on the crucial, regulative role that the concept of truth plays for democratic politics. Rorty once argued that, "if you take care of freedom, truth will take of itself." He ascribed this thought to Dewey: "Instead of justifying democratic freedoms by reference to an account of human nature and the nature of reason, Dewey takes the desire to preserve and expand such freedoms as a starting point – something we need not look behind." [Rorty, 2009, p. 119] For Rorty, the idea that we need to appeal to the value of truth in democratic politics is unjustified form of foundationalism.

If we take the arguments I've been giving in this paper seriously, then we can still agree that both Rorty and Feyerabend were right to be skeptical of the "tyranny of truth" – or the idea that we can simply appeal to apolitical knowledge to decide what we ought to do as a society. We can't prioritize the epistemological over the political because questions of knowledge frequently *are* political – even if they shouldn't be. But neither should we put politics first, epistemology second. Foundationalism turned on its head is still foundationalism – just with the ceiling tiles acting as the floor. The right lesson to draw, in my view, is that we can't get away from the fact that our political and epistemic values are, at the deepest level, intertwined. The difficulty doesn't lie in seeing this fact; it lies in trying to make sense of how we should improve our values – epistemic and political. We must take navigate questions of truth and democratic politics together. Truth is not over democracy nor is democracy over truth.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 175–190
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 175–190
DOI: https://doi.org/10.5840/eps202461349

FEYERABEND AND DECOLONISATION

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The last decade has seen a dramatic increase in literature on decolonisation of knowledge. The impression often given in recent literature is of wholesale neglect of the concerns of the decolonisation literature in what might be called 'Western thought' of preceding decades. This paper argues that Feyerabend was a notable figure within Western epistemic communities who expressed positions analogous to those of proponents of decolonisation.
The first section presents the most striking contributions from Feyerabend's work that, I suggest, bear on questions of decolonisation. Four specific issues are identified based on those: the curriculum and the role of universities; the inspirational role of student protests; the concept of 'epistemicide'; and, indigenous knowledge systems. The second section suggests a range of limitations of, and weaknesses in, Feyerabend's analysis: no substantive engagement with history or literature on decolonisation; implicitly accepting the Cclaimed inherent association of science, rationalism and various forms of modernity with Western countries and cultures; the (rhetorical) construction of an unnecessary binary choice between science and traditional knowledge systems; underplaying agency through a form of othering; creating an unnecessarily stark binary of Western science and non-Western indigenous knowledge; and, as a consequence of all these, providing no substantive analysis of how science might be integrated with other knowledge systems and cultures. The concluding section provides a brief summary and identifies areas for future work.

Keywords: Feyerabend, decolonisation, indigenous knowledge, scientism, epistemicide

ФЕЙЕРАБЕНД И ДЕКОЛОНИЗАЦИЯ

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В последнее десятилетие наблюдается бурный рост литературы по деколонизации знания. Создается впечатление, что так называемая «западная мысль» предыдущих десятилетий полностью игнорировала вопросы деколонизации. В данной статье утверждается, что Фейерабенд, будучи заметной фигурой в западной эпистемологии, выражал точку зрения, которая аналогична позиции сторонников деколонизации.
В первой части статьи представлены наиболее яркие положения концепции Фейерабенда, которые касаются вопросов деколонизации. На основе этих положений выделены четыре проблемы: программа обучения и роль университетов; вдохновляющая роль студенческих протестов; концепция «эпистемицида»; системы знаний коренных народов. Во второй части выявляются ограничения и слабые места концепции Фейерабенда: отсутствие серьезного взаимодействия с историей и литературой по деколонизации; имплицитное допуще-

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и, как следствие всех этих недостатков, отсутствие основательного анализа того, как наука может быть интегрирована с другими системами знаний и культурами.

Ключевые слова: Фейерабенд, деколонизация, локальное знание, сциентизм, эпистемицид

Introduction

The last decade has seen a dramatic increase in scholarship on, and broader societal interest in, the 'decolonisation' of knowledge.[1] This recent literature, however, often gives the impression of wholesale neglect of the concerns of the decolonisation literature in what might be called 'Western thought' of preceding decades. Furthermore, some contributions to this literature – and more contributions to associated social movements – have framed decolonisation and modern science as being in inherent opposition to each other.

While the charge of neglect is largely true, it may also be the case that scholarship which did engage with these questions was disregarded or marginalised *at the time* – with the consequence that later scholars would be less likely to be aware of it. The subsequent neglect of critical contributions from within mainstream literatures and Western scholars is not just of interest as a matter of intellectual history: it potentially has substantive import for further intellectual work on these subjects.

Feyerabend, who is the subject of this paper, may be the most striking example from among scholars of philosophy of science. Yet an earlier example can be found in the persona of Bertrand Russell, whose sentiments following his experience teaching in China [Rošker, 2021] preempt similar ones on the part of Feyerabend four decades later.

The argument that Feyerabend is best known for concerns the merits of anarchism as applied to philosophy of science, and indeed science itself, based largely on his writings in *Against Method* [Feyerabend, 2010]. The phrase 'anything goes' has been taken as representative of his broad epistemological position. This in fact is part misreading and part caricature, but for which Feyerabend nevertheless must take some responsibility because of his sometimes trite choice of language and always deliberate provocations [Shaw, 2017]. The fundamental basis of his argument in philosophy of science challenged the epistemic supremacy assigned to 'Western science' in the 20th century and, therefore, its role within and across societies.

This paper examines the significance of Feyerabend's remarks as regards the imposition of (what he calls) Western science on other societies. These

[1] See Ndlovu-Gatsheni [2018, pp. 43–69] for a valuable effort to provide an overview of key contributors to this literature and its origins.

have been largely neglected in both scholarly and biographical literature on Feyerabend. One exception is the work of Ian Kidd [Kidd, 2016; Brown, Kidd, 2016], who has sought to emphasise the role of the Cold War in shaping some of Feyerabend's views on science, the state and society.[2] The following description from Brown and Kidd provides a sense of the overlap between Feyerabend's concerns and those of scholarship that emphasises the necessity of 'decolonisation':

> What Feyerabend called the 'conquest of abundance' is, at least in part, both a celebration of the cultural and epistemic diversity evinced by the history of human cultures, both 'Northern' and 'Southern', and regret and anger at the erosion of such diversity at the hands of the forceful imperialistic political, economic, and epistemic policies of certain institutions, groups, and traditions from the global North.
> Indeed, one reason why Feyerabend urges us to be 'against method' and to bid 'farewell to reason' is because of his sense that these epistemic ideals – of a transculturally legitimate methodological norms and rational values – have been used to justify epistemically, socially, and environmentally ruinous policies, thereby 'conquering' the 'abundance' of the natural and social worlds. [Brown, Kidd, 2016, p. 5]

Another exception is Muller [2021, pp. 196–198] who draws on Feyerabend's work both in warning of the consequences of incentives exacerbating epistemic dogmatism and chauvinism within scientific and intellectual communities, as well as in relation to the implications of such dynamics for such communities in globally 'peripheral', often formerly colonised, societies.

Such observations have nevertheless been made in passing. Remedying the oversight more substantively raises a range of intellectually productive questions, a subset of which are the subject of preliminary analysis here.

The first section presents the most striking contributions from Feyerabend's work that, I suggest, bear on questions of decolonisation. Four specific issues are identified based on those: the curriculum and the role of universities; the inspirational role of student protests; the concept of 'epistemicide'; and, indigenous knowledge systems. The second section suggests a range of limitations of, and weaknesses in, Feyerabend's analysis: no substantive engagement with history or literature on decolonisation; implicitly accepting the claimed inherent association of science, rationalism and various forms of modernity with Western countries and cultures; the (rhetorical) construction of an unnecessary binary choice between science and traditional knowledge systems; underplaying agency through a form of othering; creating an unnecessarily stark binary of Western science and non-Western indigenous knowledge; and, as a consequence of all these, providing no substantive analysis of how

[2] There are important links to be made between the Cold War and decolonisation but those are outside the scope of the present paper.

science might be integrated with other knowledge systems and cultures.[3] The concluding section provides a brief summary and identifies areas for future work.

Feyerabend's Decolonial Philosophy

In his earlier work, Feyerabend was concerned with 'greater tolerance' and 'pluralism' in matters relating to epistemology, as well as pushing back against excessive deference to experts. The core of much of his subsequent, famous work is concerned with the relationship between science and society, and the arguments for reining in science are quite clearly intended to apply to the Western societies in which he had lived. That is reflected in the early version of *Against Method* [Feyerabend, 1970]. In these respects, there is nothing that could be directly related to the concerns of the decolonisation literature.

Yet towards the end of his most famous book, *Against Method*, he made the following remarks which for our purposes merit quoting at length:

> From 1958 on I was a Professor of Philosophy at the University of California in Berkeley… In the years around 1964, Mexicans, Blacks, Indians entered the university as a result of new educational policies. There they sat, partly curious, partly disdainful, partly simply confused hoping to get an 'education'… What an opportunity, my rationalist friends told me, to contribute to the spreading of reason and the improvement of mankind! What a marvellous opportunity for a new wave of enlightenment! I felt very differently.
>
> For it dawned on me that the intricate arguments and the wonderful stories I had so far told… might just be dreams, reflections of the conceit of a small group who had succeeded in enslaving everyone else with their ideas. Who was I to tell these people what and how to think?.. Their ancestors had developed cultures of their own, colourful lan-

[3] My criticisms here are different from harsher ones such as Rowbottom who, in commenting on the *Tyranny of Science*, complains that: "The work is unrelentingly negative. Yes, scientism is a naïve doctrine. Agreed, it is valuable to curb the excesses of its advocates. But what does Feyerabend give us to put in its place? He writes positively by implication, in his quaint rhetorical flourishes, of 'compassion, love and personal understanding'… But what does he tell us about these things (on which he does not declare, after Wittgenstein, that he must remain silent)? Not a jot. There is no philosophy here. No love of wisdom. There is only a hatred of ignorance." [Rowbottom, 2013]. One might note, for example, that Rowbottom's second-last assertion is patently false, since Feyerabend was at pains to emphasise his love for *different kinds* of wisdom and knowledge such that one of his primary objectives was to condemn the thoughtless or deliberate destruction of other forms of it.

> guages, harmonious views of the relation between man and man and man and nature whose remnants are a living criticism of the tendencies of separation, analysis, self-centredness inherent in Western thought. These cultures have important achievements in what is today called sociology, psychology, medicine, they express ideals of life and possibilities of human existence. Yet they were never examined with the respect they deserved…
>
> Now there was much talk of liberation, of racial equality – but what did it mean? Did it mean the equality of these traditions and the traditions of the white man? It did not. Equality meant that the members of different races and cultures now had the wonderful chance to participate in the white man's manias, they had the chance to participate in his science, his technology, his medicine, his politics… Experiences such as these convinced me that intellectual procedures which approach a problem through concepts and abstract from everything else are on the wrong track and I became interested in the reasons for the tremendous power this error has now over minds.

This excerpt touches on wide range of issues: physical dispossession, imperialism, the disparagement and erasure of local knowledge and wisdom, the superficiality of claims to equality, the role of Western universities in relation to oppressed peoples, the role of the philosopher of science in expounding dominant epistemic positions, and so forth. Ultimately, Feyerabend rejects any epistemic hierarchy with Western science and rationality at its pinnacle, and refuses to play his designated role as proselytiser. He extends his endorsement of epistemic equality beyond specific topics, to entire societies and belief systems.

Despite being amongst his most strident of arguments, the views outlined above are almost entirely neglected in the many discussions of Feyerabend's work.[4] One may speculate that this reflects not just the lack of interest in such views at the time, but also the intellectual concerns of his readers and critics – thereby in some sense further strengthening the points in question.

In this section I briefly discuss four specific topics connecting Feyerabend to the modern decolonisation literature: the role of the curriculum and universities; student movements; indigenous knowledge; and, epistemicide. The list is certainly not exhaustive but serves to demonstrate how Feyerabend's observations as a philosopher of science writing in the 1970s find resonance in the multi-disciplinary decolonisation literature of recent decades.[5]

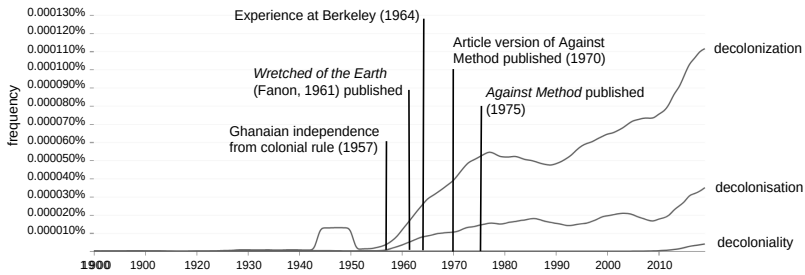
[4] Feyerabend's positions on such matters are at best mentioned only in passing in accounts primarily concerned with his contributions to more mainstream philosophy of science [Kidd, 2016; Brown, Kidd, 2016; Muller, 2021].

[5] One issue that bears mentioning in this context, is that Feyerabend appears to have inadequately addressed the actions he was associated with in his youth by virtue of having been drafted into the German military under the Nazi regime.

Curriculum and the Role of Universities

The epiphany that led Feyerabend to his own 'decolonial turn' appears to have come not from directly engaging with the scholarship of anti-colonial or postcolonial scholars, or even the political developments at a time in which many formerly-colonised countries were obtaining independence. It came rather more simply from considering the realities of the more diverse university student cohort that faced him in his classroom.[6] This anecdote and associated arguments are repeated, largely verbatim, in later works such as *Science in a Free Society* [Feyerabend, 1987] and *The Tyranny of Science* [Feyerabend, 1996].

Figure 1 locates Feyerabend's remarks relative to the literature on decolonisation, by overlaying a few key dates on a graph of the frequency of occurrence of terms related to decolonisation in publications indexed by Google using its 'Ngram' tool. It shows that Feyerabend's experience and remarks occurred at a time of heightened interest in decolonisation after the Second World War, but decades before the more recent surge in interest in this topic.



Source: Author's own construction using Google Ngram 2024

As a societally-designated locus of knowledge generation, transmission and critical engagement, the university plays a crucial role in either reproducing or challenging dominant epistemologies. A recurrent theme in the decolonisation literature has been critique of the university, alongside analysis of the origins and demographic composition of its faculty, and the content of its curricula. Indeed at present the predominant concern regarding decolonisation is that of the curriculum. Whether responding to the substance of calls for decolonisation, or institutional

6 This takes Feyerabend's account at face value. As noted in the conclusion, the origins and development of Feyerabend's decolonial sentiments warrant greater attention from intellectual biographers.

imperatives, scholars across a wide spectrum of disciplines including philosophy and the physical sciences ask: "how can we decolonise our curriculum?".[7]

Feyerabend criticises the content of standard curricula: on the scientific method, on rationalism, and on the history of thought. Even a comparative moderate like Kuhn [1996] had noted the role of textbooks in presenting (misleading) narratives in which the history of scientific thought and discovery led towards the presently-dominant paradigm in a linear fashion. Feyerabend could be viewed as, in effect, making a similar argument but in relation to an even broader category: not just the history of science but the history of thought, knowledge and culture.

Student Protests

Staying with the university, another important influence on Feyerabend's work – shifting it in more radical directions – appear to have been student protests.[8] Based on unpublished correspondence between Feyerabend and Imre Lakatos, Martin [2019] suggests that student movements and protests had an important influence on Feyerabend at the time of writing *Against Method*. He suggests that, "there is archival evidence for the way Feyerabend was moved – decisively left, it seems – by and in sympathy with leftist student movements" [Martin, 2019, p. 22].

Student protests have also played a notable role in the renewed interest in decolonisation, particularly within higher education [Ndelu, Dlakavu, Boswell, 2017; Ahmed, 2020; Nyamnjoh, 2016; Daniel, Platzky Miller, 2022].

However, there is no inherent link between the experience of such events and a corresponding sympathetic shift in thinking or sentiment. In the case of philosophy of science, Martin contrasts the effect on Feyerabend with that on Lakatos:

> The dramatic and highly visible student protests on their own university campuses moved these thinkers in opposite directions regarding their analyses of scientific method and reason, entrenching Lakatos's view that there must be an overarching rationality to the natural sciences, and

[7] This author has been on the receiving end of such queries for almost a decade, from disciplines ranging from economics to physics. Ultimately the answers are best found by those who know the areas of inquiry best, but more can be done to provide a common framework in which such endeavours can be understood.

[8] In Europe, some scholars have linked decolonisation to Black Lives Matter (BLM) in the United States, whereas BLM is largely considered a separate, albeit related, issue by those involved in the movement emanating from 'RhodesMustFall' and 'FeesMustFall' movements in South Africa.

> encouraging Feyerabend to push some limits in the denial of that claim, as Feyerabend saw scientific rationality as a potentially oppressive threat to scientific creativity and to human freedom more generally. [Martin, 2019, p. 28]

These observations further bolster the suggestion that there is a substantive congruity between Feyerabend's philosophy of science and knowledge, and the core propositions of the literature on epistemic decolonisation.

Epistemicide

One of the most influential concepts in this literature is that of *epistemicide*, which its originator describes as:

> epistemicide, the murder of knowledge. Unequal exchanges among cultures have always implied the death of the knowledge of the subordinated culture, hence the death of the social groups that possessed it. In the most extreme cases, such as that of European expansion, epistemicide was one of the conditions of genocide. The loss of epistemological confidence that currently afflicts modern science has facilitated the identification of the scope and gravity of the epistemicides perpetrated by hegemonic Eurocentric modernity [Santos, 2016, p. 92].

The author's explicit philosophical inspiration comes from elsewhere, yet the resonance with Feyerabend's arguments is striking. Consider the following paragraph from *Against Method*:

> I wanted to know how intellectuals manage to get away with murder – for it is murder, murder of minds and cultures that is committed year in year out at schools, universities, educational missions in foreign countries. The trend must be reversed, I thought, we must start learning from those we have enslaved for they have much to offer and, at any rate, they have the right to live as they see fit even if they are not as pushy about their rights and their views as their Western conquerors have always been.

In the postcolonial and decolonial literature these sentiments have a longer history. Besides more recent scholars such as Thiong'o [Thiong'o, 1998], Santos draws on Fanon [Fanon, 1963; 1967] for related insights, but one could add Nkrumah [Nkrumah, 1970], Rodney [Rodney, 1972] and Biko [Biko, 1987] among many others who wrote before or in parallel to Feyerabend. Thus we have a strong connection between the realisations that Feyerabend appears to have arrived at largely independently, albeit under the influence of student radicals and the successes of anti-colonialism, and an important strand of the decolonisation literature.

For Feyerabend, the framing of modern science as being at the pinnacle of an epistemic hierarchy necessarily plays a crucial role in the disparagement and erasure of alternative ways of understanding the world. The critique of the former, and its positioning as the consequence of a long path towards cultural superiority, inexorably carries over to a critique of the latter. The imposition of material control is facilitated by, and facilitates, the imposition of epistemic superiority.

Unfortunately, much as Feyerabend's links to decolonisation have been neglected, so too are such potential linkages in this and other biographical accounts. Nevertheless, Martin's study further confirms the importance of Feyerabend's encounter, within the university, with peoples of different origins and quite different concerns.

Indigenous Knowledge

Unsurprisingly, one of the predominant concerns of the literature on decolonisation of knowledge is the protection and validation of what is referred to as 'indigenous knowledge' or indigenous knowledge systems (IKS). A leading example is the work of Linda Tuhiwai Smith entitled, *Decolonizing methodologies: research and indigenous peoples* [Smith, 2012; Lee, Evans, 2022]. The title itself reflects a remarkable resonance with Feyerabend's *Against Method*.

Consider the following principles proposed by Feyerabend [2002, pp. 39–40]:

> R2: Societies dedicated to freedom and democracy should be structured in a way that gives all traditions equal opportunities, i.e. equal access to federal funds, educational institutions, basic decisions. Science is to be treated as one tradition among many, not as a standard for judging what is and what is not, what can and what cannot be accepted.
> R3: Democratic societies should give all traditions equal rights and not just equal opportunities.

Thus, Feyerabend proposes equal status for what is often referred to as indigenous or traditional knowledge. The influence of that strong position can be found in the resolutions of the International Council for Science (ICSU). Feyerabend features in an ICSU report endorsing greater recognition of traditional knowledge:

> The main reason is a growing awareness of the extreme inner diversity of science. Different sciences are much more dissimilar to each other than previously thought, and there is little hope to expose the unity of science by an appeal to a unique scientific method or any other means (see, e.g., [Feyerabend, 1993]).

Very similar sentiments to those of Feyerabend on traditional knowledge can be found in the work of scholars such as Odora Hoppers and Tuhiwai Smith [Smith, 2012; Lee, Evans, 2022] and in more recent literature on epistemic injustice [Koskinen, Rolin, 2019]. Unsurprisingly, a range of scholars have connected the epistemic injustices or epistemicide perpetrated in relation to indigenous knowledge with the role of the university [Odora Hoppers, 2000; 2001; Bhambra et al., 2018; Santos, 2017].

Limitations and Weaknesses in Feyerabend's Account

Intellectual developments in philosophy and other disciplines currently reflect favourably upon Feyerabend's stance, more so relative to that of his counterparts. Nevertheless, the contributions outlined above also exhibit a range of weaknesses and limitations.[9]

The first and perhaps most obvious of these is Feyerabend's failure to engage with any substantive scholarship or other literature on the decolonisation question. There is no need to elaborate that point, though it remains to be confirmed in more detailed biographical analysis.

Linked to this first failure is his tendency to engage in what might be called 'well-intentioned othering'. Mirroring the tone of the excerpt from *Against Method*, he makes the following remarks in a letter to Lakatos:

> Today I saw my first class, about 300 people… there are a lot of black people… I do not know anything about their wishes and interests and I do not know how to talk so that I do not force my interests upon them… ([Feyerabend, 1968], cited in [Martin, 2019, p. 21]).

[9] My criticisms here are different from harsher ones such as Rowbottom who, in commenting on the *Tyranny of Science*, complains that: "The work is unrelentingly negative. Yes, scientism is a naïve doctrine. Agreed, it is valuable to curb the excesses of its advocates. But what does Feyerabend give us to put in its place? He writes positively by implication, in his quaint rhetorical flourishes, of 'compassion, love and personal understanding'… But what does he tell us about these things (on which he does not declare, after Wittgenstein, that he must remain silent)? Not a jot. There is no philosophy here. No love of wisdom. There is only a hatred of ignorance." [Rowbottom, 2013] One might note, for example, that Rowbottom's second-last assertion is patently false, since Feyerabend was at pains to emphasise his love for *different kinds* of wisdom and knowledge such that one of his primary objectives was to condemn the thoughtless or deliberate destruction of other forms of it. There are other unfortunate flaws in Rowbottom's review but the details need not detain us here.

Feyerabend's stance is admirable relative to what appears to have been that of many of his peers, who appear to have encouraged him to proselytise about Western science and rationalism to students from colonised and oppressed groups.[10] He is honest about his ignorance and suitably concerned about the potential harms of imposing a set of views on these students – whether favourable to Western science or not.

However, in both excerpts cited in which Feyerabend refers to the new demographic of students his description both homogenises them and renders them impenetrable: their histories, cultures, knowledge systems and purpose are simply deemed inaccessible. Of course, such extreme relativism is not unique to Feyerabend and in recent times has emerged in a different form within 'standpoint epistemology'. Yet it seems an unjustifiably extreme position.

This assertion of inaccessibility may be the source of another weakness in Feyerabend's position: the presentation of an unnecessarily extreme, binary choice between Western science or traditional knowledge. I do not believe Feyerabend would actually endorse such a binary position, since other parts of his writing suggest a more nuanced position. For example, his emphasis on the *imposition* of certain ways of thinking reflects a view that peoples unfamiliar with a particular, perhaps dominant, epistemic position be given the opportunity to engage with it on their own terms. Nevertheless, in his remarks that are most clearly linked to topics that arise in the modern decolonisation literature, Feyerabend is somewhat guilty of encouraging what I have elsewhere suggested are fatally flawed inclinations to reject 'Western science' in its entirety.

The association of the West with science and rationalism is itself somewhat problematic.[11] Feyerabend recognises the insights within knowledge systems of other societies. Yet in his rhetoric he appears to frame those as separate from Western science, rather than overlapping with it. The role of scholarship in North Africa and the Middle East in contributing to the development of what is often referred to as 'Western science' is well-established. And the contributions of scholars from a wide range of colonised, oppressed or marginalised societies and groups to more modern developments is increasingly being unearthed and recognised. A more nuanced point is that no scholar can be said to have convincingly established the claim that something like Western science

[10] It would be interesting to know more of the backgrounds of the students Feyerabend refers to. Were the 'black' students solely African American, or were some from other parts of the world? The global positioning of African Americans in the 1960s being quite different to that of black people living in African countries, albeit that there was important efforts to forge solidarity between these groups.

[11] Preston [Preston, 2016] has raised a different set of concerns with Feeyerabend's account of the development of Western rationalism.

would not, or could not, have developed in other societies; thus to frame Western culture, science and knowledge as *inherently* intertwined may risk the same error as those who frame science as a unique outcome of Western cultural superiority.

Finally, much as he is guilty of homogenising the new students in his classes, so too is Feyerabend culpable of denying a certain degree of agency and epistemic sophistication. He does not, it seems, think to inquire what it is that the students hope to obtain from attending his classes – or Berkeley as a whole. If it is to imbibe the narrative of Western superiority and the supremacy of the scientific method, would it be appropriate to deny them that? Would it not be paternalistic to do so? A more nuanced version of this concern is to consider the possibility that such students may be capable of framing Feyerabend's lectures in the very same way that he does, and therefore position them appropriately relative to the knowledge systems they are familiar with (assuming those are not the same). This is not to say that a lecturer has no duty to avoid the sins that give Feyerabend his doubts, but rather to recognise that a student may be sufficiently equipped ex ante to know they are the subject of proselytising. And an alternative to not doing so would be to begin the process with a brief aside locating it relative to the concerns Feyerabend outlines.

As a consequence of these limitations and others, Feyerbend's position lacks substance and nuance. And it tells us nothing about the many ways in which science might be integrated with other knowledge systems and cultures. As just one example, consider the case of the African philosopher Paulin Hountondji. In his analysis of what he refers to as 'scientific dependency', Hountondji is not primarily concerned with the imposition of the scientific way of thinking per se [Hountondji, 1990]. Rather, he is concerned with *how* it was imposed and the associated consequences that render African scholars and their countries perpetual dependents on knowledge generated in the North. His concern is not with whether a microscope is useful to the African scholar or citizen, but rather with the fact that one had never been manufactured on the African continent:

> This phenomenon can be observed in a variety of ways. First, as far as equipment is concerned, not only the most sophisticated, but even the simplest technical apparatuses in our laboratories are made in the North. We have never produced a microscope. We do not master even the first step in the chain – the making of research instruments, the production of the means of production. [Ibid., p. 10]

Such a perspective is not precluded by Feyerabend's broader arguments and commitments, but rather appears to be excluded by his simplistic and overly hasty rhetorical assertions.

As noted at the outset of this section: all these weaknesses and limitations can be addressed within Feyerabend's own framework. That, however, must be the subject of separate work.[12]

Conclusion

Above I have sought to show that Feyerabend made statements about the nature of knowledge and the history of Western scientific imperialism (or scientism) that resonate with subsequent scholarly and popular thought on decolonisation, yet those contributions and the associated linkages have been almost entirely neglected. The discussion above relies only on excerpts from Feyerabend's most well-known, published works. It would be valuable if subsequent, detailed biographical work on Feyerabend's thought were to give this topic explicit consideration when examining his lesser-known works and correspondence (published or unpublished).

This is not, I suggest, merely of historical interest. It illustrates the potential for connecting deep and substantive debates in 'mainstream' philosophy of science and knowledge with the concerns of decolonial thinkers and movements. Such connections have been made in more recent decades with what have traditionally been less mainstream literatures, such as standpoint theory [Harding, 1986], black feminist thought [Collins, 1986] and feminist philosophy of science more broadly [Longino, 2002], contributors to the sociology of scientific knowledge such as Latour and Woolgar [1986], alongside more recent strands of literature based on concepts such as epistemic injustice [Fricker, 2007]. Yet there is a sense in which these connections are tenuous, haphazard or incidental. Feyerabend's work, I suggest, bolsters the possibility of a closer, more deliberate connection between fundamental questions in philosophy of science, epistemology and epistemic decolonisation.

Feyerabend's contributions themselves are, however, subject to a number of limitations and weaknesses. Many of these likely arise from the primary one: namely that he failed to substantively elaborate on his assertions. Among the consequences of that were a wholesale lack of engagement with extant scholarship on related issues, underplaying the agency of individuals from colonised or oppressed societies, and the construction of a stark binary choice between oppressive and harmful Western science or local, indigenous knowledge systems. An alternative approach, benefitting from progress in societal and scholarly thinking since Feyerabend's time, might develop these ideas more substantively by considering

[12] Muller [2021] provides a brief set of thoughts as to what such a more nuanced approach might look like.

how members of colonised and oppressed societies may integrate modern scientific thought with their historical knowledge systems – in a manner that best serves their societies. There is much more work to be done along these lines. And I would suggest that it is the inevitable path to which these literatures converge.

Feyerabend himself might have resisted this conclusion to the extent that it may, in his view, seek to 'impose too general an organising structure' on such questions. The reality is that modern societies cannot escape the confrontation between the forces Feyerabend feared and what remains of their own knowledge systems, cultures and histories. And humanity may not be able to afford much longer the failure to integrate a broader range of worldviews into the conduct, governance and use of science.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 191–211
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 191–211
DOI: https://doi.org/10.5840/eps202461350

FEYERABEND ON HUMAN LIFE, ABSTRACTION, AND THE *CONQUEST OF ABUNDANCE*

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I offer a new interpretation of Feyerabend's 'conquest of abundance' narrative. I consider and reject both the ontological reading as implausible and the 'historical' reading as uncompelling. My own proposal is that the 'conquest of abundance' be understood in terms of an impoverishment of the richness of human experience. For Feyerabend, such abundance is 'conquered' when individuals internalize distorting epistemic prejudices including those integral to the theoretical conceptions associated with the sciences. I describe several ways, identified by Feyerabend, in which individuals can be led to occlude the richness of their experience in ways that are existentially impoverishing.

Keywords: abstraction, abundance, *Conquest of Abundance*, Feyerabend, human life science

ФЕЙЕРАБЕНД О ЧЕЛОВЕЧЕСКОЙ ЖИЗНИ, АБСТРАКЦИИ И «ПОКОРЕНИИ ИЗОБИЛИЯ»

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Я предлагаю новую интерпретацию нарратива Фейерабенда о «покорении изобилия». Я рассматриваю и отвергаю онтологическое прочтение как неправдоподобное и «историческое» прочтение как неубедительное. Мое собственное предложение состоит в том, чтобы «покорение изобилия» понималось в терминах обеднения богатства человеческого опыта. По Фейерабенду, изобилие «покоряется», когда индивиды интериоризируют эпистемические предрассудки, включая те, которые являются неотъемлемой частью теоретических обобщений, связанных с науками. Я описываю несколько способов, выявленных Фейерабендом, с помощью которых можно заставить людей сокращать богатство опыта, что приводит к обеднению их существования.

Ключевые слова: абстракция, изобилие, *Покорение изобилия*, Фейерабенд, человеческая жизнь, наука

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> Why are so many people dissatisfied with what they can see and feel? Why do they look for surprises behind events? why do they believe that, taken together, these surprises form an entire world, and why, most strangely, do they take it for granted that this hidden world is more solid, more trustworthy, more "real" than the world from which they started?
>
> Paul Feyerabend, *Killing Time*

Introduction

This paper offers a new interpretation of the narrative of a 'conquest of abundance', which is central to the later writings of Paul Feyerabend (1924–1994). At the time of his death, he was working a book, never to be finished, which was later edited and published, with a set of contemporaneous essays, with an evocative title – *Conquest of Abundance* – and a vibrant subtitle, *A Tale of Abstraction versus the Richness of Being*. What its editor, Bert Terpstra, created is a composite of three manuscripts: about a hundred pages, ordered into an introduction, three chapters and an 'interlude'. Twelve contemporary essays – some long, some short – made up the second part. Feyerabend was working on this project, originally titled *Stereotypes of Reality*, since the mid-1980s. If there was a plan for the book, it does not survive, as far as we know.

Given these textual problems, any interpretation of the material published in *Conquest* must be tentative. It is not a finished book to be interpreted. Feyerabend constantly experimented with different ideas and also used the same examples in new ways; moreover, there is a new mood in these later writings, 'a quieter, more wondering attitude', as his widow, the social activist and researcher, Grazia Borrini-Feyerabend, explained [Feyerabend, 2001]. Familiar themes from the better-known earlier work are still there – such as the pluralistic conception of science – even as new themes come into view, such as the 'ineffable' character of ultimate reality. Certain older themes are revisited and given new inflection – as early as 1963 one finds Feyerabend emphasizing a '*moral* choice' between zealous pursuit of 'scientific efficiency' and the cultivation of 'a rich human life' [Feyerabend, 1981a, p. 163].

Scholars do agree, however, that *Conquest* has the following general themes. Feyerabend describes what he calls the 'conquest' of the abundance of the world; this process was already underway during the ancient period of Greek philosophy; abundance has epistemic and cultural aspects and loss of the one entails the loss of the other; conquest is associated with a movement towards uniformity and monotony and is existentially and culturally disastrous; philosophers, 'intellectuals' and their

schools have been some of the main drivers of this conquest [Clark, 2000; Downes, 2002; Hutto, 2002; Jacobs, 2006]. Of course, these and other commentators do not agree on the details.

Each of the themes invites many questions, when considered individually and especially when arranged as a broad thesis. What does Feyerabend mean by the 'conquest of abundance'. What is this 'abundance' he celebrated? What does it mean to speak of abundance being 'conquered'? How could one establish dramatic claims about long-range historical tendencies toward uniformity? Even if one accepts that claim, could one not speak of movements and counter-movements, and would this amendment damage Feyerabend's claims? How could concerns about a 'conquest of abundance' be connected to other critical narratives developed by other 20th century philosophers?

To interpret the themes of *Conquest*, it can be very helpful to see the as developments of his earlier work. *Farewell to Reason*, published in 1987, discusses the importance of cultural diversity and anticipates many of the themes of *Conquest*:

> What is being imposed, exported, and again imposed is a collection of uniform views and practices which have the intellectual and political support of powerful groups and institutions. By now Western forms of life are found in the most remote corners of the world and have changed the habits of people who only a few decades ago were unaware of their existence. Cultural differences disappear, indigenous crafts, customs, institutions are being replaced by Western objects, customs, organisational forms [Feyerabend, 1987, p. 3].

However, if the 'conquest of abundance' turns out to be a rebranded postcolonial critique, then it may turn out to be less interesting. After all, Feyerabend did not engage with work that was later called 'postcolonial science and technology studies'. In any case, what we find in *Conquest* seems different from postcolonialist critiques of science and modernity. For instance, there is the important, if elusive theme of 'conquest' and its relation to *existential impoverishment*. Moreover, the general narrative was in Feyerabend's mind since the early '70s, predating his interests in cultural diversity. At that time, he started a multi-volume history of Western philosophy of nature, starting from the Stone Age to the present day [Motterlini, 1999, pp. 216, 247, 333]. This project was never finished, though happily the manuscripts were retrieved, edited, and published by Eric Oberheim and Helmut Heit (2009 in German, and in English translation in 2016). It seems clear the *general idea* of a historical movement from epistemic richness towards deleterious 'uniformity' was in Feyerabend's mind from 1970 through to his death in 1994.

Given these obstacles, one cannot aspire to offer a serious, definitive interpretation of the 'conquest of abundance'. The text is incomplete, fragmentary, and too underdeveloped on crucial points. I agree with

the critics who dispute Feyerabend's historical claims [Clark, 2000; Heit, 2016; Preston, 2016]. A sympathetic, appropriately critical verdict on Feyerabend's 'essays in creative history' is Stephen R.L. Clark's:

> Inaccurate in detail as they may be, and ambiguous in their implications, they still constitute a deeply serious vehicle for exploring the dilemmas and ambiguities of living… amongst the gargantuan ruins of an earlier civilization which grows ever larger in our imagination as we grow away from it [Clark, 2000, p. 263].

I also think the 'conquest' thesis need not be read as a thesis about European intellectual history. It can be interpreted 'genealogically' – not that Feyerabend seemed keen on Nietzsche or Foucault – as a narrative intended to provoke critical attitudes toward inherited convictions and assumptions [Preston, 1998, p. 431]. As Feyerabend sometimes recognised, the history of Western philosophies of nature is 'too extensive even for a sketchy outline'. At most, one could '*highlight* aspects of this development without claiming any completeness' (PN [Feyerabend, 2016, p. 169]). *Conquest* modestly adopted a 'historical and episodic' approach, relating 'selected events and developments' [Feyerabend, 2001, p. 19].

My suggestion: the conquest of abundance can be understood in terms of failures to appreciate and cultivate the richness of human life and experience. Such impoverishment could unfold at the level of a culture or tradition, but also at that of an individual's experience of the world.

Abundance and Ontology

'Abundance' is not defined by Feyerabend, though he does offer several general descriptions of what he has in mind. Here are two:

> The world we inhabit is abundant beyond our wildest imagination. There are trees, dreams, sunrises; there are thunderstorms, shadows, rivers; there are wars, fleas, love affairs; there are the lives of people, Gods, entire galaxies. The simplest human action varies from one person and occasion to the next – how else would we recognize our friends only from their gait, posture, voice, and divine their changing moods? [Ibid., p. 3]

The second, from *Farewell to Reason*:

> The world we live in contains an abundance of things, events, processes. There are trees, dogs, sunrises; there are clouds, thunderstorms, divorces there is justice, beauty, love; there are the lives of people, gods, cities, of the entire universe. It is impossible to enumerate and to describe in detail all the incidents that happen to an individual in the course of a single boring day [Feyerabend, 1987, p. 104].

Some comments. 'Abundance' is explained by this expansive reference to *things*, *events*, and *processes*, that include concrete objects (trees, dogs) and abstract objects (justice, beauty) and living organisms (human and non-human). There are events and processes both regular and irregular and short-term and long-term (a thunderstorm, sunrises). There are the temporally and spatially small (atoms, fleas) and the utterly immense, ('entire galaxies'). Feyerabend also mentions as other dimensions of abundance: the radical particularity and uniqueness of these phenomena – their 'limitlessness' and 'variability' and 'ambiguity'. Even phenomena or domains that seem 'well-defined' are interconnected, often in unrealised ways.

Read in these ways, abundance seems like a kind of ontological thesis. The world contains many *kinds* of things (concrete and abstract, objects and events) – a sort of radical ontological pluralism. However, there are other aspects of abundance. Feyerabend mentions, for instance, kinds of epistemic abundance. The world is abundant because it can be experienced, understood and appreciated in different ways. Unfortunately, this point is often expressed in vague language: there is an emphatic warning about the world becoming 'bland', 'colourless' and experientially diminished. There are complaints about the erosion of the 'abundant world that affects us in so many ways' [Feyerabend, 2001, p. 16]. Abundance of this sort refers to our experience of the world, and not to its ontological contents.

The ontological and epistemic dimensions of those remarks on abundance fit well together. Feyerabend's idea could be that the world is abundant because there are many kinds of things that can be experienced and epistemically engaged with in many different ways. It does not fit other remarks in *Conquest*, though. There are at least two main problems. First: the objects and events mentioned as examples of abundance point to incompatible ontologies. Feyerabend includes 'gods', like the Homeric pantheon, alongside the postulates of contemporary physics [Ibid., p. 246]. While one could of course devise a rich ontology that incorporates atoms, gods and other diverse kinds of entities, Feyerabend's own writings do not provide that account.

There is also the complicated idea of 'manifest realities' as 'responses' to a 'material' which 'resists' our epistemic activities in ways that suggest variable 'pliability'. As one essay of the later period claims:

> The material humans face must be approached in the right way. It *offers resistance*; some constructions find no point of attack in it and simply collapse. On the other hand, *this material is more pliable than is commonly assumed*. Moulding it in one way, we get elementary particles; proceeding in another, we get a nature that is alive and full of Gods… Science is certainly not the only source of reliable ontological information [Ibid., p. 145].

It is difficult to interpret these remarks [Brown, 2016; Farrell, 2001; Tambolo, 2014]. John Preston interprets them as a form of social constructionism, which he rejects as implausible [Preston, 1998]. One problem is that, in his later writings, Feyerabend often vacillated between two different kinds of claim. Sometimes, he speaks as if abundance is an ontological thesis about the content of the world, as in the remark just quoted. But at other times, he speaks of abundance in terms of the sorts of entities relevant to human ways of life. Entities are counted as 'real', on this view, if they are relevant to human activities.

An excellent case of this second approach is the essay 'Ethics as a Measure of Scientific Truth', which was included in *Conquest*. Feyerabend claims that the Gods, demons and other entities are real if they enjoy roles or functions in human life:

> For are we really to believe that people who were not guided by a scientific worldview but who still managed to survive and to live moderately happy and fulfilling lives were the victims of an illusion? They noticed, reacted to, and arranged their lives around all sorts of entities, Gods, saints, demons, spiritual elements of matter among them [Feyerabend, 2001, p. 246].

On this view, the question of the objective reality of Gods and other entities is subordinated to one about their social functions. Feyerabend invokes what he calls 'Aristotle's Principle': *real* should be defined in terms of '*what plays an important role in the kind of life one wants to lead*' [Ibid., p. 248]. To make this clear, he explains Aristotle's Principle honours the idea that 'a way of life [be] made the measure of reality' [Ibid.]. Anthropomorphic gods, should, on this principle, be counted as real if they play roles in the life of a social community. The ontological reality of those gods is thus beside the point. In many passages of *Conquest*, Feyerabend speaks as if any entities count as real just as long as they play a pragmatic role – guiding moral life, sustaining social practices, etc. Anyway, it seems questionable that Aristotle's principle shows fidelity to Aristotle's actual ideas, but that may be irrelevant.

The later writings often try to reconcile these kinds of ontological and social-constructionist theses. In the essays collected in *Conquest*, Feyerabend sketches an interesting vocabulary – of 'manifest realities', which interact with 'Being', generating different degrees of 'resistance'. Of course, these claims were never made into a comprehensive thesis, so we do not know if and how they would have been finally expressed. There is also a further complication: Being – also referred to as 'Ultimate Reality' – is also repeatedly described as 'ineffable' [Ibid., pp. 214, 233]. *Ineffable* in this sense means that the way the world is, in itself, is permanently and necessarily unknowable. No amount of enquiry could ever yield an account of the way the world is – an idea inspired

by Pseudo-Dionysius the Areopagite, who is the founder of Christian mysticism [Kidd, 2012]. This emphasis on the ineffability of Being can be rendered in different ways – as a Kantian thesis, or a variety of perspectivism, or as a dramatic way of expressing the epistemically modest principle that our theories could always be improved [Brown, 2016; Giere, 2016].

In what follows I offer a different interpretation of the remarks on 'abundance'. I focus on the idea of the *conquest* of abundance and use that as a *via negativa* to think about abundance itself. There are two themes that need to be accommodated:

(1) *the existential theme*: the conquest of abundance compromises the meaningfulness of human life.
(2) *the critical theme*: the steady entrenchment and 'dominance' of kinds of theoretical enquiry is a main engine of the conquest of abundance.

I suggest that *abundance* refers to the richness of our ways of experiencing the world. It is this richness that can be 'conquered' if one adopts certain theoretical or abstract conceptions of the world – ones which (in the term I will use) *occlude* this experiential richness.

Abstraction and Abundance

Feyerabend identifies several aspects of the conquest of abundance. Certain abstractions, such as scientific theories and mathematical conceptions, as well as the later development of experimentation come to govern our understanding of the world. Abstractions and experimentation 'remove' the particular features and qualities which distinguish things from one another – and that constitute their distinct identity and integrity [Feyerabend, 2001, p. 5]. Generalisations are later added, along with use of further abstracting devices, such as formalisations, abstract modelling and the introduction of *theory*. The deployment of dichotomies, while useful, also further distinguishes the messy richness of phenomena [Ibid., pp. 13, 36]. Certain assumptions also begin to creep in, which are then established by new forms of *argument* [Ibid., pp. 11, 58]. Certain groups of people – 'intellectuals', as they are usually labelled by Feyerabend – become invested in these abstractions.

A further stage of abstraction is a new idea – that abstract theories alone describes reality and should be preferred, at least by 'rational' people, over the nuance, particularity, and complexity of everyday experience. For Feyerabend, the Presocratics were the key figures here, with Xenophanes and Parmenides as exemplars of emerging ideals of abstraction [Ibid., chs. 2, 3]. Soon after, other developments include potent intellectual classes who accrue social power and their products: enduring

cultures and traditions that impose their own worldviews and visions of life. When these are destructive, Feyerabend labels them 'monsters' [Feyerabend, 2001, p. 54].

It should be clear, from this summary, that there are many claims being made by Feyerabend, even if there is also a coherent general thesis. A 'search for reality', based on an assumption that reality is 'hidden', came to dominate a variety of social groups [Ibid., pp. 5, 11]. This search began for good reasons, but soon took on a life of its own. Simplification, abstraction, and other sorts of epistemic devices are not in themselves bad; if used well, they are vital to human flourishing. Feyerabend, early in *Conquest*, affirms our personal and collective need for kinds of 'blocking mechanism' [Ibid., pp. 4–5]. This natural set of mechanisms, however, will tend toward excess. Our simplifications become simplistic and our need for pragmatic generalisations mutates into crude distortions of messy realities. At this point we become vulnerable to a further failing – *forgetting or denying the actual richness of the world*. Feyerabend is aiming his critique at individuals and groups compelled to 'deny' – in different ways in different times – that 'the world was as rich, knowledge as complex, and [our] behaviour as free' as our everyday experience and life indicates [Ibid., p. 13].

The general story told by Feyerabend is one with resonances in the history of philosophy. He often saw similar themes in earlier figures, such as Kierkegaard, [Kidd, 2011]. Other potential allies, such as Nietzsche, are oddly neglected. Concerns about the existentially deleterious effects of the scientific worldview on life, however, are clearest in C20th European philosophies. Unfortunately, Feyerabend did not engage the leading figures – most obviously Heidegger, whose warnings of the elevation of disengaged spectatorial stances can fit nicely with Feyerabend's anti-scientism. Or Henri Bergson, for whom 'analytic' methods entrench kinds of rigidly mechanistic thinking that engender 'closed' societies marked by conformity.

A good candidate who Feyerabend did discuss is Edmund Husserl. In *Crisis of the European Sciences*, he produced a rich historico-cultural critique of 'post-Galilean' science. Abstractions and the myopic focus on mathematically quantifiable entities, has narrowed our epistemic imagination. It has also, says Husserl, accelerated tendencies that feed a 'barbarian hatred of spirit' [Husserl, 1970]. I find the parallels between the two narratives striking; however, all Feyerabend said was that *Crisis* was 'remarkable', that Husserl tended to overgeneralise and failed to appreciate that the historical processes at work 'started in antiquity' [Feyerabend, 1987, p. 274; 2001, p. 253].

A comparison of the crisis and conquest narratives would be interesting and put Husserl and Feyerabend into dialogue. I will not attempt that comparison here, and instead want to distinguish more carefully several aspects of the conquest narrative.

There are at least seven worth mentioning:

(1) tendencies in elite or intellectual communities towards abstract conceptions of the world that diverge ever-further from actual experience;
(2) theoretical aspirations to provide a single kind of worldview or account of the world, coupled to a sense that plurality expresses an imperfect and transient state of enquiry;
(3) a generalised, diffuse hostility towards variety across its forms (moral, epistemic, social etc.), accompanied by a judgment of these are signs of error or immaturity;
(4) the conviction that a transition from a state of variety to one of uniformity is a mark of social and epistemic progress;
(5) tendencies within society towards uniformity in ways of living and the flattening out of local practices and particularities;
(6) a concern that individuals and collectives are, increasingly, susceptible to fall for these other tendencies and convictions;
(7) a concern that all these tendencies are having deleterious existential and cultural effects – a concern voiced in a language of 'aimlessness', 'disorientation' and 'hatred of spirit'.

None of these are explicitly stated by Feyerabend; however, each is clear in his accounts of the 'conquest of abundance'. Moreover, they're all related to older themes in his work – the defences of 'epistemological anarchism', the criticisms of Popper and Kuhn, the admiration for J.S. Mill's 'experiments in living' and so on [Oberheim, 2006; Lloyd, 1996]. However, they also require critical comment.

To start with, each one needs careful qualification. Construed as historical claims, all are far too general, and, taken as they stand, obviously false. This point has been well-made by reviewers of *Conquest of Abundance*, who rightly point out its ironic reliance on generalisations. Is it really true, for instance, that the Western cultural and intellectual traditions exhibit a movement towards increasingly uniformity? No, if anything, one finds immense variegation and endless variety [Clark, 2000; Preston, 2000]. Certain stages of that history do exhibit less diversity that others, for sure, but this will deprive these themes of their force. Second: while the themes may be true for some groups, they will not be true in the wider sense intended by Feyerabend. As an example, consider ancient Greek philosophy: there were tendencies to metaphysical abstractness (Plato), but also more empirical philosophies (Aristotle), plus critical responses to both (Scepticism and Cynicism). As Helmut Heit points out, understanding early Greek thought is one thing; understanding modern scientific culture is another [Heit, 2009, p. 99]. In any period, one sees uncertainty, ambiguity, variety – meaning claims about general tendencies to uniformity are *too* general to be plausible.

A third point is that some of the tendencies could, in some cases, be welcomed, if what is lost are violent traditions, such as fascism.

Philosophies and sciences often manifest invidious values: we are better without them (racist biologies, say). Ironically, Feyerabend did at times make this point. 'Concerning an Appeal for Philosophy' is a short, eloquent essay from 1994, included in *Conquest of Abundance*. It warns against overgeneralised claims about the value of philosophy:

> Philosophy is not a single Good Thing that is bound to enrich human existence; it is a witches' brew, containing some rather deadly ingredients. Numerous assaults on life, liberty, and happiness have had strong philosophical backing [Feyerabend, 2001, p. 269].

Feyerabend made this same point about science in his 1976 essay 'How to Defend Society Against Science' with its warning there is 'nothing inherent in science … that makes it essentially liberating' [Feyerabend, 1978a, p. 3]. There can be no general claims about something as pluralist as scientific enquiry. If properly directed, scientific knowledge and institutions might serve our social and practical interests. But this does not happen by itself, for it needs intelligent organisation, as pragmatist and feminist philosophies of science have shown.

If these critical points are well-taken, they suggest a downbeat take on the conquest of abundance claims. Claims about a centuries-long processes of inexorable cultural and epistemic impoverishment is provocative and dramatic. However, they also achieve their *scope* at the price of their *specificity*. This does not mean the theses should be rejected. If claims are too broad, one could try and narrow them down. The question is what truth there might be to his claims that makes that work worth doing.

In what follows I attempt a reconstruction of claims about a 'conquest of abundance'. I want to avoid both the ontological and social-constructionist readings of abundance. I also want to avoid the expansive claims about historical tendencies. My suggestion is that one can think about abundance and its conquest at a much more particular level. If this lacks the power or drama of the story Feyerabend wanted to tell, it may at least have the virtue of being more plausible.

Abundance and Theory

The abundance of the world should not be construed in theoretical terms. Abundance *can* be articulated, of course, as a metaphysical or ontological thesis. There is also nothing necessarily wrong with theoretical and abstract conceptions of abundance. Such conceptions can play at least two important roles. First: theoretical conceptions help us pursue our social, epistemic, and practical goals. Second – and more relevant to claims about abundance – theoretical conceptions contribute to the abundance

of the world. The history of human enquiry, at its best, represents a collective exercise in imaginative engagement with the world. However the history of theoretical enquiry is only one aspect of the abundance of the world.

Here is my proposal: abundance is not a feature or fact about the world that can be coolly registered in a series of metaphysical propositions. The 'abundance' of the world is revealed through everyday experience and engagement. Theoretical description is secondary to this everyday experience. The abundance of the world is not something that only appears if one adopts some theoretical stance. It is manifest in our everyday ways of experiencing and engaging with the world. Experiencing 'abundance' means encountering the world in particular ways – as, for instance, complex, changing, and 'ambiguous'.

Abundance is an experience of the world. It is the experience of the world as rich, diverse, complex and changing, 'inexhaustible' and 'unrestricted' [Feyerabend, 2001, pp. 3, 10]. Such abundance is primarily revealed in our everyday engagements with the world – the activities, habitual practices and shared projects that makes up our 'form of life'. Feyerabend was sensitive to the complexity of everyday life, something credited to his experience in the history and practice of science (and rightly so), but there are other sources, too.

A key inspiration was Wittgenstein's early influence on Feyerabend. From *Philosophical Investigations* on, a main theme of Wittgenstein's writings was the rich, sophisticated 'bustle of life', language-games, and the 'forms of life' of which they are a part. Wittgenstein emphasises the complexity of the 'whole hurly-burly' of human life, with its complicated 'filigree pattern' [Wittgenstein, 1988, II, §§624ff]. Unfortunately, these remarkable features of our lives are often overlooked, as we are 'unable to notice something' if it is 'always before one's eyes' [Wittgenstein, 1958, §129]. We are also attracted to distorting simplifications, and a very powerful 'craving for generality' [Wittgenstein, 1972, p. 17]. Worse still, our susceptibility to these 'cravings', bewitchments and the seductions of simplification are now entrenched within our form of life, which was an important cause of Wittgenstein's sense of alienation [Kidd, 2017; Klagge, 2010, p. 24].

Feyerabend agreed with many of Wittgenstein's concerns. Our zeal for method, for instance, disguises the complexities of actual scientific practice; we seem easily seduced by abstractions which, if imposed, will become 'monsters' [Feyerabend, 1993, p. 3; 1987]. While the initial worries concerned our conceptions of science, in the later writings it expanded to our conception of human life itself (e.g. [Feyerabend, 1991, p. 489; 1981b, pp. 8, 24, 22]). A second and neglected source of Feyerabend's sensitivity to messy realities was work on the *tacit* dimensions of science. The *doyen* of that work, Michael Polanyi, emphasised the foundational role of practical experience – and the occlusion of that role

by a fixation of abstract models. For Polanyi, the 'articulate contents of science' are in fact products of practical activities – in laboratories or in the field – which cannot be systematised and are best left as an 'unspecifiable art' [Polanyi, 1958, p. 53; Preston, 1997]. Appreciation of the tacit dimensions of science has an important celebratory function: our everyday activity, shared practices and traditions of enquiry are rich in ways that cannot be schematised. What is marvellous is the messiness.

On this view, what is really 'abundant' – in the sense of rich, complicated, ever-changing – is *human life*. It is this abundance that one starts to forget when one's vision narrows. Abundance is revealed in ways of experiencing and engaging with the world, and this includes but is hardly limited to theoretical 'ways'. In a nice remark, Wittgenstein complained:

> While still at school our children get taught that water consists of the gases hydrogen and oxygen, or sugar of carbon, hydrogen and oxygen. Anyone who doesn't understand is stupid. The most important questions are [thereby] concealed [Wittgenstein, 1980, p. 71].

The 'most important questions' concern the place and roles of water in human life – that in which we swim, with which we baptize, which gives life and so on. In effect, many kinds of significance water has in human life are collapsed in favor of a myopic focus on its chemical structure. Wittgenstein was not denying the importance of chemical knowledge: his objection was to the occlusion of a richer senses of what kinds of knowledge and practice *matter*.

I do not know if Feyerabend's ideas were inspired by these points of Wittgenstein. I have no evidence he read *Culture and Value*, for instance, nor that he kept up an interest in Wittgenstein's work. Considering the eclectic character of Feyerabend's thought, there are many possible influences. It is useful, though, to think of Wittgenstein's concerns with practice, theory, and human life in relation to the conquest of abundance. I am here following the lead of David E. Cooper, whose work draws on Wittgenstein and Feyerabend – among others – to help us understand what might be meant by the 'conquest of abundance' [Cooper, 2000; 2002].

Cooper proposes that the 'conquest of abundance' should be understood as the *occlusion of experience*: 'something occludes an experience when it obstructs the having of it or distorts it' [Ibid., p. 341]. The occlusion of experience, in Feyerabend's terms, is the conquest of abundance. Many things can occlude our experience of the world as abundant, argues Cooper, including conceptions of the world – worldviews and metaphysical visions, for instance. Such conceptions occlude the experience of the abundance of the world, and thereby 'conquer' it, diminishing our sense of the 'richness of Being'. Our everyday experience reveals the abundance of the world, but we can be tempted to forget, ignore, dismiss

or otherwise impugn this if we fall victim to occluding conceptions. Cooper explains that our existential experience serves as a criterion for appraising conceptions:

> Conceptions may be appraised in terms of their conduciveness to experience. They may be too one-sided, partial, or bland to enable an environment or world to be appropriately experienced or received [Cooper, 2002, p. 341].

The ideal is conceptions of the world that affirm our pre-theoretical experience of 'the rich, colourful, and abundant world that affects us in so many ways' [Feyerabend, 2001, p. 16]. Our experience of the world as abundance acts as a *measure* of theoretical conceptions, for those which occlude experience of the 'abundance' of the world cannot command assent [Cooper, 2002, p. 341].

I propose that the 'conquest of abundance' can be understood in terms of the occlusion of experience. In Feyerabend's language: 'abstractions' become part of elaborate theoretical conceptions of the world, which are built of dichotomies and simplifications which are prone, in different ways, to occlude the abundance of the world. The systems of abstractions can take many forms – metaphysical theories, scientific worldviews, and kinds of *Weltbild*. Feyerabend generally targets a set of theoretical conceptions which privilege natural science. Cooper defines theoretical conceptions:

> By a theoretical conception of X – of nature, the mind, language, or even the world as a whole – I mean a conception that *privileges* a theoretical account of X. Hence it is not, say, the chemical theory in which water is described as H_2O that is a theoretical conception, but the idea that this description is a privileged one [Ibid., p. 342].

Feyerabend has no objections to scientific theories by themselves, of course. Used well, they serve essential epistemic and practical roles in our form of life. There are many reasons to privilege scientific theories, too, including kinds of scientific realist conviction. Other grounds for privileging could be given, though. What matters, for Feyerabend, is the conviction that natural scientific conceptions of the world could occlude our experience of the abundance of the world. The task of theorists is not to describe our existential experience of the world. If, however, theorists come to dominate our ways of understanding ourselves and our world, a consequence is occlusion of existential experience.

The Occlusion of Experience

I suggested that the conquest of abundance should be understood as the occlusion of experience and that a main driver of this 'conquest' is the entrenchment, in our form of life of theoretical conceptions of life and reality. So, how does this occlusion work? There are several possibilities:

(1) theoretical conceptions could *confront* claims of abundance by denying them sense or truth, even aspects of everyday life, such as time or plurality, integral to everyday experience [Feyerabend, 2001, pp. 13, 66]. People who report abundance will be seen as indulging in 'mere fantasies', 'victims of an illusion' to which more educated people are immune [Ibid., pp. 27, 246].

(2) theoretical conceptions *degrade* experience, if without direct confrontation, they entail kinds of experience cannot be taken at face value. A narrative of abundance, for instance, comes to be explained away or 'rubbished' (see [Cooper, 2002, p. 338]). Such narratives can be classified as 'folk' and contrasted unfavourably with the specialist knowledge of experts [Feyerabend, 2001, p. 219].

Note the conceptions in question can succeed if they induce uncertainty and suspicion in people about their sense of abundance.

Some other forms of occlusion:

(3) experience of abundance could be dismissed as mere *appearance*, not as a representation of objective, real, or actual features of the world. The standard example in *Conquest* is the basic assumption of the 'search for reality' and the dichotomy of a 'solid, trustworthy' reality and 'deceiving appearance' [Ibid., p. 36].

(4) experience of abundance can be accepted, but treated as an *inferior* and *immature* account of the world. While suitable for everyday life, an epistemically serious account of reality is very different. Our experience of things as good or beautiful or meaningful will not feature in any serious description of the world – they will be 'reduced to basic theory' [Ibid., p. 215]. Feyerabend rejects the idea that only an 'abstract approach tells you what is really going on' [Feyerabend, 2011, p. 121].

(5) everyday experience captures, at best, only an unfortunately 'superficial' aspect of the world [Feyerabend, 2001, p. 268]. Everyday experience reveals only the accidental, contingent or superficial aspects of reality. Sophisticated theory is required to get down to the essential, fundamental aspects of life. Only 'the pronouncements of experts are knowledge of the purest kind' ([Ibid., p. 220]). If so, the search for reality can only be *effected* by experts and only be *expressed* in sophisticated theory.

Feyerabend does not distinguish these privileging practices. However, each is implicit in his criticisms of, *inter alia*, a 'search for reality', crass dichotomies, the elevation of abstraction over concrete experience, and the derogation of experiential understanding of the sort found in arts, crafts, and everyday practice [Feyerabend, 2001, pp. 13, 258]. The cultural entrenchment of the theoretical conceptions offered by the sciences is not, of course, the only engine of a conquest of abundance. But they are central to the particular form it took in our cultural history. Indeed, Feyerabend's own critique resembles those of other C20th philosophical critics of scientific modernity.

Two outstanding examples, each cited in Cooper's own discussion, are Wittgenstein and Heidegger. The 'dominance and primacy of the *theoretical*', warned Heidegger, was 'messing up' the modern world – and for Wittgenstein, the age of science and technology may signal 'the beginning of the end for humanity'. In *Being and Time*, Heidegger warned that 'looking at the world theoretically' meant one had 'dimmed it down to [a] uniformity' [Heidegger, 1962, p. 178]. In his later vocabulary, 'ways of revealing' the world closer to everyday experience get 'driven out' [Heidegger, 1977, p. 27]. Wittgenstein, too, warned that the 'cold, grey ash' of scientific theory smothers the 'glowing embers' of life [Wittgenstein, 1980, p. 56]. Our experience, of objects and places as well as people and creatures, is derogated – 'dimmed down', 'driven out' – in favour of evermore elaborate systems of abstraction. Even if people continued to feel or sense a richer abundance, entrenched epistemic habits lead them to turn away from it. The world is increasingly experienced in terms of instrumental rationality, with the moral, emotional, or aesthetic meanings of things relegated to a trivial, 'subjective' status.

The problem here is not science, but a certain way of understanding the scope and status of science, that is generally called *scientism*. Many advocates of these distorted conceptions of science derogate the arts and aesthetic experience [Schroeder, 2017; Tallis, 2011]. A minimal role for art is tolerated, as, say, the scratching of our evolved itch for sensory stimulation. But that's hardly a fulsome conception of the aesthetic and how it features in human life. Heidegger thought that there cannot be 'great art', of a sort that 'reveals' the world, in cultures where only science is judged to 'reveal' and art has only 'use-value' as the source of stimulation or nice 'sensations' [Heidegger, 1982, p. 42]. Wittgenstein, in a widely-quoted remark, said 'people nowadays think … scientists exist to instruct them, poets, musicians etc. to give them pleasure'. The idea that artists may 'have something to teach' is therefore lost [Wittgenstein, 1980, p. 36].

Feyerabend would sympathize. A constant theme of his work is an appreciation of the arts as companions to the sciences. Aesthetic experiences and practices, for Feyerabend, help us create and explore 'an open domain of possibilities' – an abundant world that is experientially rich,

ever-changing, and open to many interpretations. In new forms of representation, other aspects of the richness of reality come into view and so remind us that the world is 'not exhausted by our descriptions or representations' [Ambrosio, 2021, p. 32]. There are kinds of abundance not representable or communicable by the sciences – and this was a development of Feyerabend's earlier ideas, from the 1960s, about the contributions of arts to the sciences: the arts are 'complementary' to science, for instance, and 'needed to fully realise its potential' [Feyerabend, 1993, p. 267]. By the 1990s, artistic practices assume a grander role, being part of 'a survey of the possibilities of human existence' [Feyerabend, 1991, p. 495]. Scientistic tendencies – such as confining meaningful 'revelation' of truth about life and the world to the sciences – must be resisted. Reductionism, scientism and other failings are epistemically deficient, but also existentially desiccating, as noted by Robert Farrell:

> Feyerabend is highly critical of unified worldviews when they are reductionistic in character: when they achieve unity at the expense of denigrating large sections of reality as not really real; where mind, or culture, or aesthetic experience, or whatever aspects of existence which resist reduction are perceived as illusory and metaphysically second-rate [Farrell, 2003, p. 234].

Ian Hacking made similar claims:

> What Feyerabend disliked was any form of intellectual or ideological hegemony […] Single-mindedness in the pursuit of any goal, including truth and understanding, yields great rewards; but single vision is folly if it makes you think that you see (or even glimpse) the truth, the one and only truth [Hacking, 2000, p. 28].

The entrenchment of theoretical conceptions are main drivers of the conquest of abundance. They are hostile to the richness of our everyday ways of experiencing and engaging with the world; they confront, degrade, or demean the richness and significance the world has for us; those conceptions also disenfranchise kinds of human activity – artistic, for instance – that manifest, celebrate and affirm the abundance of the world. In a form of life dominated by these conceptions, one risks a 'conquest of abundance' – a loss, at an individual or collective level, of 'the abundance of ways in which natural things may figure for us' as significant and so part of a meaningful life [Cooper, 2002, p. 345].

This interpretation of the conquest of abundance, while consistent with many of Feyerabend's remarks, also relies on an assumption worth drawing out. I see him as presupposing that our *default* experience is the experience of an abundant world. As he says early on in *Conquest*, 'the world of all living things already contains the restrictions and the structures that are needed for a meaningful existence' [Feyerabend, 2001, p. 13]. Likewise, each of us – unless something intervenes – inhabits

a 'rich, colourful, and abundant world that affects us in so many ways' [Feyerabend, 2001, p. 16]. Put another way, abundance is not a special virtuoso achievement needing specialist epistemic skills – ones possessed only by intellectuals or specialists [Ibid., pp. 54, 269]. Indeed, there are very good Feyerabendian arguments for bringing lay people into specialist enquiry, such as 'citizen science' initiatives [Roe, 2021]. Abundance should be seen as a joint product of the natural richness of the world, and the complexity of human beings. The humanist ethos of Feyerabend's writings is perhaps at its most vivid in his appreciation of the remarkable richness of human life – even of allegedly 'ordinary', mundane lives. Feyerabend once quoted the haunting closing verse of Bertolt Brecht's *Threepenny Opera*:

> There are some who are in darkness.
> And the others are in light.
> And you see the ones in brightness.
> Those in darkness drop from sight.

Even an ordinary life is abundant – in cares, concerns, achievements, struggles, grief, little actions, ambition and hope. Living is a process of inheriting, assessing, creating and responding to possibilities – actualising some and negating others. Good human lives will be rich in possibilities. Unfortunately, such possibilities, for an individual or whole cultures, can be eroded and diminished – by warfare, political mismanagement, economic immiseration, bad luck, cruelty, and a crass imposition of theoretical conceptions that corrupt us into narrowminded and cold-hearted creatures. The conquest of abundance therefore encompasses all the *bête noires* of Feyerabend's later writings – dogmatic habits, cultural imperialism, the erosion of traditional societies, philistinism and scientism and an insouciant indifference to the marvellous richness of human life. John Preston notes Feyerabend's status as a 'hero of the anti-technological counter-culture', which is true, and the interconnections between his moral-political, epistemic, and cultural concerns, if I'm right, go deep [Preston, 2020, p. 6].

The abundance of the world can be conquered in many ways. Philistine assaults on the arts, a cultural homogenisation that flattens the dappled variegation of the social world, the depluralisation of scientific enquiry, the monoscapes created by the devastation of natural environments, dubious ideals of 'progress' or 'development' and – at a more individual level – deep impulses to hatred, greed, vainglory, and sullen self-enclosededness. What unifies these, I suggest, is their status as vehicles of the conquest of the experiential abundance of the world. As the phenomenologist Dan Hutto explains in his review of *Conquest*:

> In the hope of developing a single, uniform account of things, we disregard all that will not fit with it or reduce to it. Although this is often billed

> as progress towards the 'real', it is in fact nothing but a bias in favour of one way of seeing things over others. It constitutes a self-imposed blindness, which is not only naïve but dangerous and oppressive [Hutto, 2002, p. 366].

Conclusion

This paper made a start on sketching a new, different interpretation of some of the main ideas of *Conquest of Abundance*. I suggested that we should interpret the 'conquest of abundance' narrative as a claim about an occlusion of our experience. It is not an historical and epistemological thesis (although it does make historic and epistemological claims). Nor is it an ontological, metaphysical thesis about the contents of reality. The unfinished character of *Conquest* means that we must not be dogmatic in making claims about Feyerabend's *true* intentions. At best we can offer an *interpretation*, consistent with at least many of his remarks and, also, as faithful as possible to his concerns.

In my reading the 'conquest of abundance' refers to a series of perennial tendencies, in both individuals and communities, which in different ways distort our understanding of ourselves and our world. Creativity, imaginativeness and other epistemic capacities can be corrupted or impoverished. If these tendencies are not resisted, we can come to forget or even deny the rich, abundant realities of our experience and life. If this is allowed to continue, the outcomes are morally as well as epistemically disastrous. The scientific institutions we inherited have contributed much to human life, but they brought with them risks, ones that philosophy of science should play a central role in redressing. While philosophers and others voice these worries, they also find powerful expression in film. Charlie Chaplin was prescient in the closing speech of *The Great Dictator*:

> We have developed speed, but we have shut ourselves in. Machinery that gives abundance has left us in want. Our knowledge has made us cynical, our cleverness, hard and unkind. We think too much and feel too little. More than machinery we need humanity. More than cleverness we need kindness and gentleness. Without these qualities, life will be violent, and all will be lost.

While Feyerabend was less pessimistic, there was a clear agreement that any impoverishment of human life can lead to the immiseration of human beings and the corruption of the human world.

Other important aspects of the later writings do not feature in my account, like the 'ineffability of Being', which are understudied. I think there are connections between abundance, the occlusion of experience, and the ineffability of Being. What is ultimately occluded, within scientistic cultures, is a sense of the ineffable, radically mysterious nature of reality [Feyerabend, 2001, pp. 214, 233; Kidd, 2017, §§4–5]. If Being

is ineffable, we cannot, on pain of 'effing the ineffable, describe it in positive terms, a point made by Hasok Chang:

> [A]bundance is not the same thing as ineffability. 'Being' or 'Basic Reality', whatever that is, is ineffable, indescribable, unknowable. What is abundant is the richness of experience, and all the different ways in which people have known and made sense of experience. The 'conquest' of that abundance can only be managed by the human collective in a pluralist way [Chang, 2021, pp. 54–55].

The abundance of the world is the richness of human ways of experiencing and engaging as individuals and as collectives. Conditions of tolerance, pluralism, and an expansive sense of the possibilities for meaningful human life are all integral to Feyerabend's life, work, and legacy.

Acknowledgements

I am grateful to Olga Stoliarova for her invitation and excellent, erudite comments on an earlier draft. I also benefited from discussions with Matthew Duncombe, and the genial community of Feyerabend scholars.

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Эпистемология и философия науки
2024. Т. 61. № 3. С. 212–220
УДК 167.7

Epistemology & Philosophy of Science
2024, vol. 61, no. 3, pp. 212–220
DOI: https://doi.org/10.5840/eps202461351

Фейерабенд: апология нонконформиста

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Данная статья является обзором избранных глав из книги “Interpreting Feyerabend: Critical Essays” (ed. by K. Bschirr & J. Shaw). Выбор материала обоснован двумя основными траекториями рецепции идей Фейерабенда в современной философии науки и эпистемологии: критикой подхода к самопрезентации науки и критикой научного модерна. Полемический тезис, сформулированный на материале обзора, состоит в том, что интерпретация Фейерабенда имеет апологетическую направленность. Его методологические воззрения интерпретируются авторами книги как созвучные ценностям научного реализма и научного прогресса. В анализе проекта науки в свободном обществе ими акцентируется его значимость для самой науки.

Ключевые слова: Фейерабенд, наука, научный реализм, экспертиза, наука в свободном обществе

Feyerabend: an apology for a nonconformist

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This is a review of selected chapters from the book “Interpreting Feyerabend: Critical Essays” (ed. by K. Bschirr & J. Shaw). The choice of the papers for the review is justified by two main trajectories of the reception of Feyerabend’s ideas in the contemporary philosophy of science and epistemology: his criticism of the approach to the self-presentation of science and criticism of scientific modernity. The polemical thesis formulated on the basis of the review is that Feyerabend’s interpretation has an apologetic orientation. His methodological views are interpreted as consonant with the values of scientific realism and scientific progress. The analysis of his project for science in a free society emphasizes its significance for the interests of science itself.

Keywords: Feyerabend, science, scientific realism, expertise, science in a free society

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Пол Фейерабенд остается, без преувеличения, одной из самых ярких и противоречивых фигур в философии XX в. О мере его влияния на современную повестку, с одной стороны, говорит то, что редкий курс истории и философии науки в университетах сегодня обходится без упоминания методологического анархизма, плюрализма, принципа пролиферации и «единственного суждения о науке, которое выдерживает проверку временем: “anything goes”». С другой стороны, провокативный характер его позиции не способствует вдумчивому прочтению работ, которое необходимо, чтобы определить место Фейерабенда не только в истории философии науки, но и в связи с ее актуальными проблемами. Пафос бунтарства и свободолюбия, особенно свойственный поздним его работам, не только стал препятствием для их содержательной оценки, но и закрепил за ним статус «врага науки» среди ученых. Сегодня это осложняет задачу добросовестным исследователям Фейерабенда, поскольку интерпретация здесь едва ли может быть свободной от оценки и зачастую вынужденно приобретает черты апологии[1]. В этом отношении иллюстративен и сборник “Interpreting Feyerabend: Critical Essays” (2021) под редакцией Карима Бшира и Джейми Шоу, обзору которого и посвящена данная статья. В одиннадцати эссе этого сборника проясняется, с одной стороны, философско-методологическая позиция Фейерабенда (его отношение к реализму, плюрализму, научному прогрессу и т.д.), а с другой – исследуется мера созвучия идей Фейерабенда трендам в конкретных философских дисциплинах (от философии физики и философии сознания до исследований гражданской науки и экспертизы). Из-за ограничений в объеме я остановлюсь лишь на нескольких эссе, которые отражают две основные линии развития идей Фейерабенда в современной философии, согласно Иэну Кидду.

Траектории рецепции

Эссе Иэна Кидда “Feyerabend, Science and Scientism” дает обобщенную характеристику вклада Фейерабенда в философию науки. Кидд полагает, что рецепция наследия Фейерабенда определяется неравновесностью двух основных траекторий его исследований: критики самопонимания (self-understanding) науки и критики научного модерна (scientific modernity). Основным объектом первой критики был «методологический монизм: концепция науки как единого предприятия,

[1] В этом отношении показательна, например, статья Иэна Кидда [Kidd, 2016], где особенно одиозный для ученых тезис Фейерабенда в защиту астрологии интерпретируется как аргумент против несовместимости стандартов, которым следуют ученые в профессиональной и публичной деятельности, а также в защиту эпистемической целостности (integrity) науки.

эпистемическая эффективность и единство которой обусловлены использованием во всех ее дисциплинах и проектах единственного, формализованного набора четко определенных, исторически инвариантных, контекстно-независимых методологических норм» [Kidd, 2021, p. 178]. При этом методологический монизм, по Фейерабенду, не способствует адекватному самопониманию науки, поскольку он: 1) оторван от социологических и исторических исследований («реальные науки, которыми занимаются ученые, имеют мало общего с монолитным монстром под названием “наука”» [Farewell to Reason, 1987, p. 155]); 2) развивает догмы, которые не только не помогают, но и препятствуют научным исследованиям (например, идею научного метода); 3) мешает выстраиванию коммуникации между наукой и другими познавательными практиками, отводя науке место на вершине эпистемической иерархии. Кидд считает, что эти идеи Фейерабенда значительно повлияли на дальнейшие исторические и социологические «повороты» в исследованиях науки, развитие идеи плюрализма и разобщенности науки (disunity of science), продвигаемой Стэнфордской школой, дискуссии о ценностях в науке и проект социально ангажированной философии науки. В то же время Кидд полагает, что вторая линия «критики», связанная с научным модерном, оказалась гораздо менее плодотворной. «Реакционный романтизм» Фейерабенда, связанный с неприятием гегемонии научного миропонимания, унификацией и утратой простоты жизненного уклада, отразив интеллектуальные веяния конца 1970-х, остался артефактом эпохи и почти не отозвался во времени. Основные причины этого Кидд видит в том, что Фейерабенд не дал этим настроениям систематической разработки, не стремился соотнести их с идейно близкими параллельно развивавшимися программами (феминизмом, социальной эпистемологией, постколониальными исследованиями), не пытался укоренить в традиции (феноменологии или экзистенциализме). Интересно, что, по мнению Кидда, эти идеи могли бы зазвучать ярче, если бы Фейерабенд оказался привязан к континентальной критической теории, поскольку эпистемические ресурсы аналитической философии науки (традиции, в рамках которой работает большинство последователей Фейерабенда) мало пригодны для критики научного модерна. Формулируя общее заключение о месте Фейерабенда в современной философии науки, Кидд приходит к следующему выводу: «Разрушая ограничения позитивистского образа науки, Фейерабенд открыл пространство, которое позже было занято и освоено другими, что позволяет приписать ему большую роль в *истории* философии науки, но не в ее настоящем или будущем» [Kidd, 2021, p. 189]. И тем не менее современная философия науки по своему духу во многом остается «поразительно фейерабендианской».

Согласно этой оценке места Фейерабенда («в истории, но не в настоящем или будущем») одной из причин двойственного отношения

к его наследию является «неформатный» образ самого философа науки. Сегодня он предстает яркой и самобытной, но скорее одинокой фигурой на общем фоне. У него есть репутация интеллектуального провокатора и ниспровергателя авторитетов, чье имя известно за пределами философии, но именно эта «инаковость» и делает его столь неудобным, с одной стороны, для основания традиции (или научной школы), а с другой, для обоснования ценности его идей в контексте современной науки. В этой связи любопытно, что авторы эссе, посвященных прояснению эпистемической позиции Фейерабенда, стремятся показать, что его взгляды, несмотря на внешнюю провокативность, вполне конвенциональны и не противоречат ценностным основаниям и представлениям о развитии научного знания в современной науке.

Эпистемическая позиция Фейерабенда

В статье "The Coherence of Feyerabend's Pluralist Realism" Хасок Чанг выступает в защиту приверженности Фейерабенда принципу реализма, адресуя критику Джону Престону ("Feyerabend's Retreat from Realism", 1997). Чанг убежден, что раннего Фейерабенда «скорее следует воспринимать как квазиреалиста», который полагал, что мы относимся к теориям так, *как если бы* (*as if*) они описывали реальность, не будучи при этом убежденными в том, что теориям это действительно удается. В то же время у позднего Фейерабенда, по мнению Чанга, «нет никакого *as if*: реальность – это то, что описывают хорошие теории. Эта идея усиливает плюрализм Фейерабенда: то, что он защищает, это не разочаровывающая нас в итоге (ultimately frustrating) пролиферация *as if*-теорий, большинство из которых исчезнет без следа, но такая пролиферация, в которой каждая теория, каждый жизненный уклад (way of life) помогает создавать другую реальность, которая не будет отброшена после нахождения правильной» [Chang, 2021, p. 49]. Отсылая к статье Фейерабенда *Realism* (1994), Чанг показывает, что ее автор критиковал реализм лишь в форме монизма и абсолютизма, которого придерживаются сторонники научного реализма (как позиции о возможности единственно верного описания мира). Самому Фейерабенду, по мнению Чанга, близко аристотелевское понимание реализма, что, в частности, отражено во Введении к *Philosophical Papers* (1981): «Мы признаем реальными те вещи, что играют важную роль в предпочтительной для нас форме жизни». Распространенное прочтение идей позднего Фейерабенда в духе радикального конструктивизма (в том числе в упомянутой книге Престона) ошибочно, если конструктивизм противопоставляется реализму. «Во-первых, все, успешно сотворенное

(manufactured), становится реальным по завершении процесса творения» [Chang, 2021, p. 53]. Во-вторых, мы не можем создавать реальность по своему произволу, «как и не можем объяснить в категориях свойств этого мира, почему те или иные теории оказываются успешными» [Realism and the Historicity of Knowledge, p. 145; цит. по: Chang, 2021, p. 53]. В целом непостижимость бытия, лежащего за пределами видимого мира (appearances), может быть компенсирована лишь изобилием (abundance) познавательного опыта.

В отношении к тезису о самоценности многообразия опыта любопытным оказывается вопрос о значении ложных теорий в развитии научного знания, которому посвящена статья Брэда Рэя (K. Brad Wray). Анализируя роль Тихо Браге в коперниканской революции, автор обосновывает тезис о том, что благодаря этой и другим альтернативам, которые вынуждены были оценивать приверженцы птолемеевской модели, переход к новой картине мира был гораздо более гибким, поскольку «эрозия научного консенсуса не требовала признания одной конкретной конкурирующей теории» [Wray, 2021, p. 84]. В то же время, «когда выбирать приходится только из двух теорий, переход обретает характер катаклизма, что может отвратить многих от признания новой теории» [Ibid.]. При этом Рэй отмечает, что многие современные последователи Фейерабенда выступают в защиту теоретического плюрализма именно в связи с риском упустить истину среди проигнорированных альтернатив. В качестве примера Рэй анализирует аргументы Хасока Чанга в защиту плюрализма и показывает, что плюрализм Чанга, в отличие от плюрализма Фейерабенда, имеет прагматические основания. Для Чанга альтернативы ценны тем, что они «заставляют ученых хеджировать их ставки. И это уменьшает шансы упустить истину» [Ibid., p. 87]. Кроме того, Чанг считает, что, обнаружив ограниченность теории, мы не должны отбрасывать ее, потому что «выстроить рабочую систему не так-то просто, и ее нужно сохранять так долго, как это возможно» [Chang, 2012, p. 258; цит по: Wray, 2021, p. 87]. Рэй отмечает, что с этими аргументами трудно спорить, но они отклоняются от линии Фейерабенда, позиция которого в отношении «вуду и астрологии четко показывает, что он хотел обратить внимание на ценность очевидно ложных теорий» [Ibid.]. Рэй разделяет позицию Элизабет Ллойд о том, что Фейерабенду близка идея Милля: ложные убеждения поддерживают жизнеспособность истинных, помогая людям понять, в силу каких причин они придерживаются своих убеждений.

Статья Акопа Барсегяна “Feyerabend’s General Theory of Scientific Change” посвящена вопросу о том, почему Фейерабенд не создал целостной концепции развития науки. Автор статьи приходит к заключению, что у этого есть две причины: во-первых, он не ставил такой цели; во-вторых, он придерживался «партикуляристской аксиологии», считая, что аномалии интереснее общих паттернов развития. «В итоге

он (Фейерабенд. – *Л.Т.*) пролил немало чернил, показывая, как теории *разрабатываются* (pursued) в нарушение существующих стандартов. В то же время лишь несколько его исторических примеров могут быть проинтерпретированы как иллюстрация изменений в *принятых* теориях и используемых подходах к оценке теорий» [Barsegyan, 2021, p. 68]. Барсегян также отмечает, что методологический анархизм Фейерабенда не предполагает четкого различения принципов разработки и признания теорий, а сам автор склоняется к тому, что следует говорить об анархизме в контексте разработки теорий и зависимости признания теорий от установленных норм и правил сообщества. Для Барсегяна важно, что в таком виде позиция Фейерабенда не противоречит рационализму Лакатоса, поскольку неприемлемый для Лакатоса тезис о том, что любая теория может быть признана, «будет несовместим с идеей самого Фейерабенда о том, признание теории существенно зависит от локальных стандартов конкретного сообщества» [Ibid.].

Резюмируя эту часть обзора, выскажу предположение, что тезис Хасока Чанга о приверженности Фейерабенда реализму, акцент, сделанный Брэдом Рэем, на продуктивности ложных теорий для поддержания интеллектуальной атмосферы, в которой разрабатываются более успешные теории, а также уточнение Акопа Барсегяна о совместимости позиций Фейерабенда и Лакатоса имеют, помимо прочего, «апологетическую» функцию. Авторы словно стремятся убедить читателя (в первую очередь читателя от науки) в том, что закрепившийся за Фейерабендом образ нонконформиста, разрушающего представления ученых о науке, не вполне отвечает его взглядам. В то же время более внимательное прочтение позволяет показать, что он вовсе не враг науки, а сторонник идей, которые считаются респектабельными в консервативном в отношении к проблематике философии науки сообществе ученых. Стоит отметить, что этот аргументативный ход работает в духе самого Фейерабенда: чтобы «троянский конь» попал в «башню из слоновой кости», он должен иметь привычный для ее обитателей внешний вид.

Фейерабенд об экспертизе и гражданской науке

Во второй части обзора я рассмотрю две статьи сборника, которые отражают вторую линию рецепции идей Фейерабенда, по Иэну Кидду, – а именно линию критики научного модерна.

В статье Мэттью Брауна “Against Expertise…” обсуждается проблема взаимодействия науки и общества в связи с тезисом Фейерабенда о том, что в свободном обществе у научных экспертов не должно

быть особого эпистемического или социального авторитета, определяющего их доминирующую роль в принятии общественно значимых решений. Этот тезис был в явном виде сформулирован в «Науке в свободном обществе» и «Как защитить общество от науки» – работах, которые почти не встретили понимания у читающей публики и о которых, как пишет Браун, в конце жизни сожалел сам автор. Однако большая часть «Науки в свободном обществе» все же вошла во второе и третье издание «Против метода», а идеи о необходимости общественного контроля над экспертизой до сих пор вызывают немало споров. Браун показывает, что радикализм Фейерабенда здесь определяется не только его хорошо известной методологической позицией, но и политическими идеалами. Вовлечение обывателей в экспертизу как процесс разработки политических решений, по Фейерабенду, – условие, необходимое для зрелости (maturity) общества. Зрелость в данном случае понимается «не как интеллектуальная добродетель, а как чувствительность, которая может быть сформирована только благодаря взаимодействию с множеством различных точек зрения» [Science in a Free Society, 1978, p. 107, цит. по: Brown, 2021, p. 202]. В этой связи важен сдвиг в понимании функций экспертизы, который предлагает произвести Фейерабенд: экспертиза – это не место, где легитимируется политическая субъектность ученых, а скорее сфера становления гражданского общества – едва ли не единственная, где в условиях представительской демократии граждане могут получить возможность напрямую участвовать в коллективных решениях и принимать за них ответственность с опорой на собственный разум (пусть и ценой просчетов и неэффективности). В рамках этого процесса граждане могут оценивать и валидировать результаты научной экспертизы, основываясь на собственных представлениях об их возможных социальных последствиях. Делегирование такой ответственной миссии обывателю хотя и может казаться неприемлемым ученым, имеет эпистемическое обоснование. Признавая ценностную нагруженность научного знания, необходимо признать и то, что «ценности, подходящие для формирования убеждений, и ценности, подходящие для совершения действий, различаются» [Mitchell, 2004, pp. 250–251; цит по: Brown, 2021, p. 193]. Отсюда, у науки как традиции нет никаких преимуществ, позволяющих ей обоснованно претендовать на монополию на формирование образа действий. В этих условиях наука сталкивается с ценностной дилеммой «автономии» и «авторитета», которую Браун формулирует как «эпистемический анархизм» vs «строгая подотчетность» (strong accountability). «Эпистемический анархизм отрицает наличие внешней по отношению к вашим собственным убеждениям или воспринятым утверждениям силы (authority), сверх того, на основании чего вы можете судить сами, используя обычные эпистемические нормы, данные вам в кантовском смысле» [Brown, 2021, p. 208]. «Строгая

подотчетность легитимирует научный авторитет ценой автономии» науки [Brown, 2021, p. 208], требуя при этом большей прозрачности научной практики и научной политики (при этом Браун отмечает, что не вполне понимает, как именно может быть реализована такая программа). Сам автор в финале статьи предварительно намечает срединный путь взаимодействия науки и общества, который может быть реализован с опорой на идеи Дж. Дьюи о демократии как коллективном исследовании (collective inquiry). Здесь признается необходимость экспертного мнения и авторитет ученых в экспертизе (в соответствии с принципом когнитивного разделения труда), однако этот авторитет не абсолютен, он подлежит критической оценке и обсуждению с учетом ситуативного контекста [Ibid., p. 211].

В то время как модель взаимодействия экспертов и общества, которую реконструирует Браун, является сугубо нормативной (по сути, остается на уровне благих пожеланий, формулируемых исследователями), коммуникация ученых и граждан реализуется на практике в рамках гражданской науки (об этом – статья Сары Ро "A Way Forward for Citizen Science" [Roe, 2021]). При этом, надо признать, и она носит весьма ограниченный и, если так можно выразиться, «витринный» характер. До сих пор это участие в основном сводится к сбору данных, которые подлежат последующей перепроверке учеными и в итоге далеко не всегда используются в научных исследованиях. В этом отношении тезисы Фейерабенда («исследование – это не привилегия особых групп, а (научное) знание – не универсальная мера человеческого совершенства (excellence)» [Farewell to Reason, 1987, pp. 27–28]; «граждане, ведомые, но не вытесняемые экспертами, могут подмечать недостатки науки» [Ibid., p. 57]; «знание, которое необходимо для понимания и развития наук, приходит не из теорий, а из участия (participation)» [Ibid., p. 284] и др.) становятся для исследователей гражданской науки подспорьем в обосновании расширения формата участия волонтеров в научных проектах. Сара Ро подробно обосновывает тезис о важности развития проекта гражданской науки как для общества, так и для самих ученых. Однако от себя добавлю, что отсылки к Фейерабенду служат здесь скорее идеологическим целям, но едва ли помогают в понимании того, как реализовать полномасштабный проект гражданской науки на практике. Еще более сложной задачей кажется нахождение такого способа ее организации, который предполагал бы не научную индоктринацию, а взаимодействие рациональностей как традиций (что в большей степени отвечает плюрализму Фейерабенда). По-видимому, причина этого затруднения – в слабой теоретической разработке институциональных механизмов науки в свободном обществе в работах самого Фейерабенда (как это подмечено Иэном Киддом).

Подводя итог, следует отметить, что эссе, посвященные науке в свободном обществе, в отличие от тех, что исследуют методологиче-

ские воззрения, вовсе не нуждаются в специальных теоретических подпорках для обоснования респектабельности идей Фейерабенда. Тезис о расширении гражданского участия в экспертизе и научных практиках, сформулированный поздним Фейерабендом, сегодня не требует особой легитимации в рамках «левой» повестки, развиваемой STS и социальной эпистемологией. Однако очевидная актуальность Фейерабенда здесь в первую очередь связана со схожестью пафоса его работ и исследований экспертизы, публикуемых в наше время. В то же время эвристический потенциал идей Фейерабенда для расширения экспертизы и реализации гражданской науки – не на уровне теоретических конструктов, а в качестве институциональных практик – все еще требует обоснования. Несомненно лишь то, что идеи Фейерабенда остаются открытыми для интерпретаций, а современные исследователи, следуя его собственному завету (anything goes), вольны по-новому расставлять акценты в борьбе со штампами, препятствующими свободе их собственных интеллектуальных поисков.

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Научно-теоретический журнал

Epistemology & Philosophy of Science / Эпистемология и философия науки
2024. Том 61. Номер 3

Учредитель и издатель: Федеральное государственное бюджетное учреждение науки Институт философии Российской академии наук

Свидетельство о регистрации СМИ: ПИ № ФС77-57113 от 3 марта 2014 г.

Главный редактор *И.Т. Касавин*
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Подписано в печать с оригинал-макета 04.09.024
Формат 60×100 1/16. Печать офсетная. Гарнитура IPH Astra Serif
Усл. печ. л. 15,54. Уч.-изд. л. 15,9. Тираж 1 000 экз. Заказ № 16

Оригинал-макет изготовлен в Институте философии РАН
Компьютерная верстка: *Е.А. Морозова*

Отпечатано в ЦОП Института философии РАН
109240, г. Москва, ул. Гончарная, д. 12, стр. 1

Информацию о журнале «Эпистемология и философия науки»
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