

## 1: Donald Davidson, The Inscrutability of Reference - PhilPapers

*Examples from the Web for inscrutability Contemporary Examples of inscrutability Not only can this create a feeling of helplessness, it also lends drones an inscrutability that can feel threatening.*

While the inscrutability of reference concerns itself with single words, Quine does not want it to be used for propositions, as he attacks those in another way. In order to accomplish this, Quine makes the statement that there is a so-called holophrastic indeterminacy, which tells that there are always multiple translations of one sentence, which are not only different in the meaning of the single parts of them, but moreover is the whole meaning of both translations dissimilar. Therefore, one has to blindly accept the validity of this hypothesis, or try to make sense of it via reflecting upon the idea[ clarification needed ]. We are told that, if we try to determine what the referential object of a certain word is, our answer will always be relative to our own background language[ clarification needed ]. Now, as Quine sees it, this idea is not only limited to language, but applies also for scientific questions and philosophical ones. For example, if we are proposed a philosophical theory, we can never definitely characterize the ontological commitments of it[ clarification needed ]. The most we can do, is to adapt this theory to our current background philosophy, that is the theory of which we have already accepted the ontological commitments[ clarification needed ]. He, however, insisted that he belongs in neither of these categories, [6] and some authors see in the inscrutability of reference an underdetermination of relativism. As a special part of this theory the inscrutability of reference indicates that, in trying to find out to which object a certain word also sentence, sign etc. That is even the case, if the possibilities that come into consideration lie very close together. Note that it is also applied at the indeterminacy of translation, but has traditionally been introduced to point up referential inscrutability. The gavagai thought experiment tells about a linguist, who tries to find out, what the expression gavagai means, when uttered by a speaker of a yet unknown, native language upon seeing a rabbit. At first glance, it seems that gavagai simply translates with rabbit. Now, Quine points out that the background language and its referring devices might fool the linguist here, because he is misled in a sense that he always makes direct comparisons between the foreign language and his own. However, when shouting gavagai, and pointing at a rabbit, the natives could as well refer to something like undetached rabbit-parts, or rabbit- tropes and it would not make any observable difference. The behavioural data the linguist could collect from the native speaker would be the same in every case, or to reword it, several translation hypotheses could be built on the same sensoric stimuli. Hence, the reference between the term gavagai and its referring object is language- or framework-dependent, and therefore inscrutable. Quine regards this discovery as trivial, because it is already a widely accepted fact that all the different things one word might refer to can be switched out, because of their proxy functions. Not only is it impossible to discern, by any method, the correct translation and referential relation of gavagai, but, in fact, there is not even a correct answer to this question. It is important to note that indeterminacy and inscrutability not only occur in the course of translating something from a native, unknown language into a familiar one, but among every language. This holds also for languages which are quite similar, like German and Dutch , and even for speakers of the same language. We commonly use the homophonic rule in those cases, i. But, as has been shown, there are multiple possibilities which can be indistinguishable from one another. One must not, however, use different possible referential objects in the same translation, because they are incommensurable and the resulting translation hypothesis would contain logical fallacies. This traditional view implies a correspondence theory of truth and might simply be called Realism about Being. While Michael Dummett already tried to show that the correspondence theory fails to obtain in some particular cases, Hilary Putnam is far more radical, for he claims that this theory fails in every case it is tried to be applied. This raises the question of where the line is to be drawn. How long does the heap remain a heap, are two grains still a heap? The referential object of heap is inscrutable, in the sense that there is no such thing and it is not even necessary for the use of the term heap.

## 2: In the Case of John Boswell by Richard John Neuhaus | Articles | First Things

*It was all humbug--all this mummery about intuitions and unerring perception and inscrutability. In a kind of radiance, superb in her inscrutability, she laughed before him.*

Oliphint begins answering the questions sent to us by reformation21 readers. We want to thank everyone for their questions and we pray the answers from Dr. Oliphint will be a blessing. The late Antony Flew told a now-famous parable of an "Invisible Gardener. In this garden there are many flowers and many weeds. One explorer claims that there must be a gardener who tends the plot, while the other explorer denies it. They set a watch, but nothing happens. The believing explorer still affirms his belief in a gardener, but suggests that the gardener is invisible. The two explorers set up an electrified barbed-wire fence and patrol it with bloodhounds. The wires never sway, and the bloodhounds never bark. The believer maintains his belief in the gardener. The gardener, so he argues, is invisible, intangible, and insensitive to electric shock. He has no scent and makes no sound, but he loves and tends the garden. Finally, the skeptic despairs and asks the believer how his gardener differs from no gardener at all. The first is the philosophical aspect. Flew was attempting to illustrate that any statement that cannot be, at least possibly, falsified, is nonsense. His claim is that any statement that purports to take in everything means nothing in the end. For a statement to be meaningful, it must be set against contrary states of affairs. In writing of his rationale for the parable, Flew says: Someone tells us that God loves us as a father loves his children. But then we see a child dying. His Heavenly Father reveals no obvious sign of concern. Some qualification is made. What would have to occur to constitute for you a disproof of the love of, or of the existence of, God? And it was the problem of suffering and evil that motivated this conclusion. Generally speaking, the problem states that it is unwise, if not downright irrational, to continue to believe something when there is evidence that either undercuts or rebuts its truth. The motivation behind the parable is the sometimes horrendous affliction that comes often to people, and that is obvious to anyone whose eyes are open. And the difficulty with such atrocities is that they continue to happen, and happen with nauseating regularity, in the face of our insistence that God, who is goodness itself, exists. The first thing that needs to be said is that the problem of evil is, perhaps first of all, an intensely pastoral problem. To have it reside simply on the intellectual level is an evil in and of itself. However, there is also an intensely philosophical problem that concerns those of who work in the area of Christian apologetics - a defense of the Christian faith. As a matter of fact, it seems to me that the problem of evil is one of those problems where the pastoral and philosophical concerns are most closely related. If it is dealt with properly in a philosophical way, one cannot help but deal, at the same time, with at least some of the pastoral concerns. The problem of evil is still considered to be the strongest argument against Christianity specifically, or theism generally. It is thought to be the Achilles Heel of Christianity, the one thing that brings the whole position crumbling down. One of the reasons that the problem of evil is considered to be such a strong argument against Christianity is that it has such broad appeal. All we need do is live in this world and we have first-hand experience and understanding that things are terribly wrong. When we think about the typical notion of God in relation to all that is terribly wrong, the problem becomes acute. It is articulated in two, many would say, contradictory propositions: God is omniscient, omnipotent and wholly good. There are two basic ways to argue the inconsistency of these two propositions. The first, and historically most predominant way, is to argue that these two propositions are logically contradictory. This argument is still used by some, but it has given way to the so-called "evidential" argument from evil, and it is an attempt to show that, given the sheer amount of evidence of evil in the world, God, most likely, cannot exist. In other words, the evidential argument begins by asking us to look around and to see if bad things happen. Sane people answer yes to that question. Then the evidential argument goes one step further. It concedes the point that it might be the case that some bad things happen for good purposes. That is, it concedes some merit to a kind of "Greater Good" Defense - a child receiving a shot, or a chemotherapy patient. But then it asks a further question. It asks us to look around and to see if there are any evils in the world that occur without justification. One recent book out on this subject is entitled, *God and Inscrutable Evil*. The evidential argument depends, not just on the existence of evil, but on the existence of

what it calls inscrutable evil. This is evil, one author tells us, for which there is no God-justifying reason. By that he means that this is evil that is inexplicable - it cannot be explained, even by referring to God. So, those who hold to the evidential argument, first propose that there is evil, and lots of it, which is fundamentally inscrutable. Part of the answer to that question is in the language we have used to discuss this problem. In the eighteenth century, a philosopher by the name of Gottfried Wilhelm von Leibniz wrote a work entitled, Theodicy. Even the most pious among us, in our honest moments, pleads for an explanation of certain kinds of evil. So the evidential argument can carry a significant amount of plausibility. The problem, however, is that inscrutability is located in the wrong place, initially. It is best, when thinking of this problem, to begin thinking, not of Theodicy, but of Theophany. The initial problem with the problem of evil is that God Himself is inscrutable. Think for a minute about someone being absolutely independent. Is it any wonder then that there are things that this inscrutable God does that our minds are unable to contain? That, of course, was the lesson that Job had to learn. We are privy to more of what is going on with Job than even Job was so it is sometimes too easy to be hard on him. But remember Job wants an answer to his own personal problem of evil. And how does God answer Job? Let him who accuses God answer him! I put my hand over my mouth. I spoke once, but I have no answer-- twice, but I will say no more. Would you condemn me to justify yourself? Then adorn yourself with glory and splendor, and clothe yourself in honor and majesty. In the midst of His suffering, Job decided it was time for inscrutability to stop. There needs to be a God-justifying reason for what is happening to Job, and in the world generally. And how does God respond to Job? Inscrutability lies at the feet of Almighty God, and therefore there are things that we simply will not understand - things, as Job says, "too wonderful for me, which I did not know. That God, our Heavenly Father, "reveals no obvious sign of concern. And the One who was in the very form of God, did not consider equality with God something to be held on to, but emptied Himself, taking the very form of a servant, and becoming obedient, even to the point of death on a cross cf. Do you want the ultimate inscrutable? Isaiah tells us In that way, by way of Theophany, he, personally and painfully, resolved the problem of evil for eternity. Do we really need to know more than that?

## 3: Helm's Deep: Which side of history are you on?

*The inscrutability or indeterminacy of reference (also referential inscrutability) is a thesis propounded by 20th century analytic philosopher Willard Van Orman Quine in his book Word and Object.*

Curiously, the paradox attracted little subsequent interest until the late 19th century. Marxist philosophers in the neo-Hegelian tradition, like Plekhanov [ In this way some Marxists sought to establish the triumph of the dialectic. Meanwhile, in Anglo-American philosophy, formal logic regained its central place, and its classical formalisation left no room for the vagueness of natural language. Vagueness and the associated paradox were seen as lying beyond the scope of logic and so posing no challenge to it. Different Formulations of the Paradox At least three conditions must be met for an argument to be an instance of the sorites paradox. An incremental difference is supposed to guarantee that if a vague predicate applies to one of a pair of neighbors, it applies equally to the other. The paradox is often presented in the conditional form discussed above. Then the paradox can be represented most simply this way, using Modus Ponens: Another version of the puzzle is a variant of the inductive form. Then we can schematize the latter reasoning this way: For convenience in what follows, most of the examples are framed in terms of the conditional or inductive forms of the paradox. Of course, an adequate resolution of the sorites will presumably need to disarm all versions of it. Here it is framed in terms of the hypothetical classifications that would be made by a competent speaker proceeding step by step along a sorites series. As will emerge, the forced march sorites plays an important role in several treatments of the paradox. It is worth noting that the popular definition of vagueness in terms of soriticality e. If the sorites is a resolvable fallacy, as most theorists of vagueness believe, then vagueness is not after all a source of paradox. Maybe someone will say that even after the correct diagnosis of the puzzle has been discovered, the argument will remain a paradox because it will still appear to consist in unimpeachable reasoning from true premises to a false conclusion. But such a view makes vagueness far too contingent a property; for all we know, once we have discovered the proper solution to the puzzle, the major premise will no longer appear true. It may appear true to the uninitiated, but this too would be a dubious way to define vaguenessâ€”viz. If a sorites argument is a fallacy, a vague predicate cannot be correctly employed in it. Is the criterion supposed to be that a vague predicate is a term which, when employed incorrectly, appears temporarily to the uninitiated? Responses to the Paradox As with any paradox, four broad types of response appear to be available. Alternatively, one might accept that the paradox is a legitimate argument to which logic applies, but then deny its soundness by either rejecting some premise s , or The most drastic response would be to embrace the paradox and conclude that vague terms are either incoherent or vacuous. In what follows, we consider the major philosophical treatments of the sorites and the ways in which they have employed these strategies to dissolve the puzzle. A key attribute of the ideal language is said to be its precision; hence the vagueness of natural language, including all soritical terms, is a defect to be eliminated. Logic simply does not apply to them. However, with the demise of ideal language doctrines and subsequent revival of interest in ordinary language, vagueness was no longer regarded as a superficial or easily dispensable feature. If logic was to have teeth, it had to apply to natural language as it stands; soritical expressions are unavoidable and the paradox must be faced head on. Responses of type 2 do just this and are the most common family of responses. Logic is seen as applicable to natural language, in particular to the paradoxical argument, and the latter is diagnosed as resting on a faulty premise. In contrast, epistemicists think that vagueness is just a form of ignorance: In fact, heaps are sharply divided from non-heaps, and tall heights are sharply divided from average ones, but we cannot discover where those divisions lie e. On this view, the sorites paradox is dispatched immediately: And bivalence is preserved: What facts about the world or natural language or competent speakers could serve to fix sharp boundaries for vague words? According to Williamson e. Insofar as the use of a vague term varies across time, its boundaries may be unstable. Another possible route to knowledge of the boundary locations is blocked by the fact that our knowledge of the application of a vague term is inexact. Inexact knowledge is governed by margin for error principles, viz. Consequently, if we classify the former shade as blue, that classification is correct by luck, and so does not constitute knowledge. On the plausible assumption that seeing

that something  $x$  is blue is sufficient for knowing that  $x$  is blue, it follows that some blue things are such that we cannot see that they are blue, even under ideal viewing conditions. The virtues and the appeal of the epistemic theory are significant, and it has earned its share of supporters. At the same time, the view may be hard to accept. Even its proponents grant that epistemicism is intuitively implausible; and it seems to multiply mysteries. As a first approximation, the epistemicist says that vague terms have unknowable sharp boundaries that are fixed by an unknown function of their unknowable  $i$ . However, it seems that the function too must be unknowable, not just unknown; for how could we recognize it if we came across it? Graff Fara defends a different strain of epistemicism Graff , Fara As Stanley puts it, when we look for [a] boundary of the extension of [a vague term] in its penumbra, our very looking has the effect of changing the [extension] of the vague expression so that the boundary is not where we are looking. Retention of classical logic and bivalence is supposed to be a chief advantage of the epistemic approach over other views  $e$ . Indeed, because bivalence is widely supposed to entail sharp boundaries, many theorists of vagueness believe that, for all intents and purposes, epistemicism is the only theory that can employ a bivalent semantics  $e$ . Starting in the later part of the 20th century, a number of non-classical logics and semantics have been developed for vague terms, each advancing its proprietary resolution of the sorites paradox. The extent of the proposed logical innovation varies. Most semantic theories of vagueness and treatments of the sorites conceive of the application of a vague term as indeterminate in a certain range of cases. In what follows we review some of the major semantic treatments of the paradox. As a result, it endorses a non-bivalent logic that, at least on the face of it, retains the classical consequence relation and classical laws while admitting truth-value gaps. On this view, the challenge posed by the sorites paradox can be met by logical revision in the metatheory alone, and a type 2 response is advocated. Unlike the epistemic conception of vagueness, a semantic conception will treat the apparent semantic indeterminacy of vague predicates as real. The positive extension of a predicate is given by those values to which the predicate definitely applies, the negative extension by those values to which the predicate definitely does not apply, and the remaining penumbral cases are values to which the predicate neither definitely does, nor definitely does not, apply. Consistently with a view of vagueness as a semantic deficiency  $e$ . Applying the predicate to something in its positive extension results in a super-true sentence, while applying it to something in its negative extension results in a super-false sentence. Equating super-truth with truth simpliciter and super-falsity with falsity simpliciter then results in a non-bivalent logic with borderline cases giving rise to truth-value gaps. With validity then defined in the usual way as preservation of truth simpliciter , the supervaluationist account of validity coincides with classical validity. In particular, treating laws as zero-premise arguments, supervaluationism preserves all classical laws. Thus, despite its abandonment of bivalence, supervaluationism validates the law of excluded middle. As a consequence, supervaluation semantics is not truth-functional. It countenances instances of true disjunctions neither of whose disjuncts is super true. Conjunction and the conditional exhibit analogous non-classical features. Since all of the forms taken by the sorites paradox are classically valid, they are also supervaluationally valid. The conclusion of the conditional form using Modus Ponens is resisted by noticing that some conditional premise fails to be true; though, admittedly, none is false. The conditional sorites is valid but unsound. More revealing is the diagnosis of the version employing a universal major premise. This version is also deemed unsound due to the failure of one of the premises—the universal premise. The universally quantified conditional is not true; in fact it is false. While there is no one conditional premise that is false, it is nonetheless true according to supervaluation theory that some conditional is. What supervaluation semantics claims to provide is a formal account of how, contrary to appearances, such a conclusion could be true; it is true since true no matter how one resolves the indeterminacy of the vague term involved  $i$ . In this way the sorites paradoxes are said to be defused. With vagueness viewed as a semantic phenomenon, classical semantics is no longer appropriate as a semantics of vague language and supervaluation semantics is proposed in its place. One immediate concern facing this solution is the fact that it ultimately treats the mathematical induction and line-drawing forms of the sorites in the same manner as the logically conservative epistemic theory does. Supervaluationists respond by denying that the conclusion of the line-drawing sorites expresses the existence of a sharp boundary. Whilst it is true that there is some cut-off point, there is no particular point of which it is true that it is the cut-off point. Since

only the latter sort of cut-off point is taken to be a sharp boundary, no commitment is made to such a boundary of which we are ignorant contra the epistemic theorist. With this explanation, however, doubts arise as to the adequacy of the logic. In effect, the counterintuitive aspects of the epistemic theory are avoided only at a cost to other intuitions. At this point the supervaluationist might seek to explain these semantic anomalies by showing how they are mandated by a proper understanding of the underlying phenomenon of vagueness. More exactly, the suggestion is that a view of vagueness as merely semantic, not reflecting any underlying phenomenon of metaphysical vagueness. Fine appears to promote this representational view when defending the law of excluded middle, for example, and Varzi amongst others also defends supervaluationism in this way. If successful, such a defense would also provide a principled justification of the common de facto linkage of supervaluation theory and a representational view of vagueness. If this explanation is to be pursued, then the formal machinery of supervaluationism solves the paradox only in conjunction with a denial of metaphysical vagueness. The metaphysical debate is ongoing. Keefe, on the other hand, opts for a risky pragmatic defense: Williamson points to two further problems apparently afflicting the supervaluationist account. The logic of the extended language is decidedly non-classical. Dummett [] offers an alternative definition of validity that does not encounter this problem, but Williamson raises other objections to it. However, Graff Fara [] shows that if we strengthen the notion of consequence to penumbral consequence, we get failures of these principles even in the absence of a determinately operator. Second, problems arise also with regard to the phenomenon of higher order vagueness. In accommodating higher order vagueness, the supervaluationist must admit that his proffered concept of truth, viz. Contrary to claims by supervaluationists, then, truth is not super-truth see Keefe for a rebuttal. For discussion and criticism from a supervaluationist perspective see Keefe

### 4: J. R. G. Williams, The Price of Inscrutability - PhilPapers

*He has made everything beautiful in its time. He has also set eternity in the hearts of men; yet they cannot fathom what God has done from beginning to end.*

The Public Square by Richard John Neuhaus March Boswell, a professor of history at Yale, says that in the early Church there were few sanctions against homosexuality. In time, theologians such as Thomas Aquinas would provide a theological rationale for the prohibition of homosexual acts, and canon lawyers would give the prohibition force in ecclesiastical discipline. That, Boswell says, is the unhappy legacy that is still with us in the attitudes and laws prevalent in Western societies. The Boswell book was at first met with widespread acclaim. I would not hesitate to call his book revolutionary, for it tells of things heretofore unimagined and sets a standard of excellence that one would have thought impossible in the treatment of an issue so large, uncharted, and vexed. Since then the book has become a staple in homosexual literature. In sum, Boswell and his book have had quite a run. Among his fellow historians, however, Boswell has not fared so well. The scholarly judgment of his argument has ranged from the sharply critical to the dismissive to the devastating. But reviews in scholarly journals typically appear two or three years after a book is published. By that time the Boswell book had already established itself in many quarters as the definitive word on Christianity and homosexuality. There are not many NT texts dealing explicitly with homosexuality. Extended treatment was not necessary as there is no evidence that St. Paul and other writers dissented from the clear condemnation of such acts in the Hebrew Scriptures. Boswell and others make a limp effort to mitigate the sharp strictures of the Old Testament and rabbinic literature, but even some gay partisans recognize that that effort is not strikingly plausible. Their women exchanged natural relations for unnatural, and the men likewise gave up natural relations with women and were consumed with passion for one another, men committing shameless acts with men and receiving in their own persons the due penalty for their error. Do not be deceived; neither the immoral, nor idolaters, nor adulterers, nor homosexuals, nor thieves, nor the greedy, nor drunkards, nor revilers, nor robbers will inherit the kingdom of God. And such were some of you. But you were washed, you were sanctified, you were justified in the name of the Lord Jesus Christ and in the Spirit of our God. More important, this passage underscores that for homosexuals, as for adulterers et al. But none of this changes the clear assertion that homosexual behavior is wrong. And that has been the Christian teaching over the centuries. The revisionists of the Boswell school make several interesting moves. They suggest, among other things, that the homosexual practices condemned by Paul were condemned because they were associated with idolatrous cults and temple prostitution. And it is true that Romans 1 is concerned with idolatry, but the plain meaning of the text is that homosexual acts are themselves an evidence of turning away from God and the natural order that he has ordained. Put differently, the point is not that some homosexual acts are wrong because they are associated with idolatrous cults; rather, homosexual acts are wrong because they are themselves a form of idolatry. Christian history is a multifarious affair, and it does not take much sniffing around to discover frequent instances of what is best described as hanky-panky. Certainly that has been true of at least some Christian communities in the last forty years or so. The Church has always been composed of sinners, and some periods are more morally lax than others. In the years before, say, the fourth century, when Christian orthodoxy more firmly cohered, there are significant gaps in our knowledge, and numerous sects and heresies flourished, some of them bizarre also in their moral practices. This is a rich field for speculation and fantasy, and Boswell makes the most of it. He has failed, however, to persuade those who are expert in that period. What Paul meant by homosexuality is not what we mean by homosexuality today, they contend. The whole point of Romans 1, in fact, is to stigmatize persons who have rejected their calling, gotten off the true path they were once on. The logic of the argument goes farther: If Paul had known about people who were not capable of heterosexual relations and if he had known about loving, committed, same-sex relationships, he would have approved. The whole point of Romans 1, it is suggested, is that people should be true to who they really are—whether heterosexual or homosexual. The problem that Paul had was with heterosexuals who were false to themselves by engaging in homosexual acts. Like many influential but misleading arguments,

this one contains an element of truth. There were simply men who did curious things, including engaging in homogenital acts, that were viewedâ€”in different cultures and to varying degreesâ€”with puzzlement, tolerance, or usually strong disapproval. What if he knew about a significant number of people, constituting a sizable subculture, who engaged only in homogenital sex and found heterosexual relations personally repulsive? This would likely not surprise Paul, who was no stranger to unruly and disordered desires. For I do not do what I want, but I do the very thing I hate Wretched man that I am! Who will deliver me from this body of death? Thanks be to God through Jesus Christ our Lord! Episcopal bishop John Spong, a prominent champion of the gay movement, is not alone in claiming that Paul was a repressed and frustrated homosexual. Proving a negative is always a tricky business. Gay advocates who adopt the Spong line should take care. If Paul was a homosexual in the current meaning of the term, then it demonstrates precisely the opposite of what they want to demonstrate. Wilken puts it gently: To use it as an interpretive category is confusing and promotes misunderstanding. Where there were laws or social attitudes against homosexuals, they had to do not with homosexuals as a class but with homosexual acts. Even where certain homosexual acts were tolerated by society as in ancient Greece, there was no suggestion that sexual preference determined behavior or that certain people were thought to belong to a distinct group within society. What Boswell fails to say is that this chargeâ€”along with others, such as the claim that Christians sacrificed children in the Eucharistâ€”was manufactured out of whole cloth and historians have long dismissed such claims as having nothing to do with Christian behavior. They appear only in Christian writings such as that of Minucius Felix, perhaps because they were slanderously passed on the streets or because their obvious absurdity gave Christian apologetics greater force. The situation, in short, is entirely the opposite of what Boswell suggests. Boswell seems not to have noticed it, but the passage makes clear that, for both Romans and Christians, it was assumed that to charge someone with fellatio was to defame him. Both the Christians and their critics assumed that such behavior is a sign of moral depravity. David Wright, the author of the pertinent encyclopedia article on homosexuality, wrote in He commended select television stations for their coverage of that event, and then moved on to consider the role of the major networks and newspapers. We offer an extended excerpt of his speech, after which a midrash of our own. It is an important question, because it addresses an issue that confronts us every day. Most reports on World Youth Day itself were fair, even glowing. However, when the media turned from the events of those days to give an assessment of the Catholic Church in general, they confirmed what many have long suspected: I asked that our conference staff review a large sample of the media coverage. That review has confirmed a tendency on the part of the media to tell this story of their own making. Regularly, reports of the enthusiasm and love of the youth for the Holy Father would have as wraparounds the predictable caveats that many Catholics do not agree with him. I was to be given thirty seconds. What this technique does, in fact, is exclude from the conversation the broad mass of the Catholic population. These polls need to be challenged both on their width and their depth. Television, with an unrivaled ability to bring millions of people to events taking place far away, remains neglectful of religious news and more and more newspapers are becoming equally neglectful. That means churches and temples attracted more people this past weekend than all major league baseball attracted all last season. But while every newspaper and television station has a team of sports reporters and editors, it is rare to find even one full-time religion reporter in a newsroomâ€”rarer still to find a religion reporter who truly understands the religion about which reports are written. Whatever the media, they need religion reporters who know their field, who understand the specifically religious issues. We too are messengers of newsâ€”the good news of the truth that makes us free. The news media are called to something similar. Their reach has become so great and their power so all-present that they have a greater responsibility than ever to report accurately and truthfully so that an informed public can order its affairs in true freedom. Such self-respect includes the realization that division and conflict are not the only news worth reporting. As I said in the course of the welcome ceremony at Mile High Stadium, our pilgrimage was a time of celebration because the Catholic Church is in fact alive and growing in the United States. The real story notes that our Catholic press brings a fresh perspective on the news to more than twenty-five million subscribers, that our Catholic hospitals serve more than fifty million patients yearly. We have been following this scene for thirty years and, with exceptions that can be numbered

on less than ten fingers, religion reporters are prone to a shoddiness that makes claims to journalistic professionalism risible. And, as the Archbishop notes, the larger story is that religion is simply not reported. Given the way that it usually is reported, one is sometimes inclined to think that that may be just as well. But one does not wish to be unfair by picking on religion reporters. They are simply part of a journalistic industry that is notable chiefly for its superficiality, conformity, and intellectual laziness. The news business is as corrupt an occupation as any we have with us today, probably more corrupt than most. Certainly it is the more smarmy and insufferable in its claim to be the tribune of righteousness in monitoring the corruption of others. Of course, like taxes, disease, and death, the news industry is inevitable. Nor should we think it was necessarily better in the olden days. A brief survey of newspapers at, say, the end of the nineteenth century quickly disillusioned on that score. Maybe it is simply that we were younger and more naive. One should have no illusions about the media. Yes, the Archbishop is right, they should report the good news, too. And sometimes they will. But reporters are in the bad news business. That is why journalists relish wars, disasters, and sensational scandal—most of all when scandal touches the presumably upright. Of course journalists are not entirely responsible for this. The appetite for the sensational and salacious is the seamier side of human nature, and reporters only pander to it.

## 5: Queering the Underworld: Slumming, Literature, and the Undoing of Lesbian and Gay History, Herring

*Ontological Relativity and the Inscrutability of Reference. Jacqueline Miller Thomason - - Philosophical Studies 22 (4) - The Indeterminacy of Translation and the Inscrutability of Reference.*

Monday, January 02, Which side of history are you on? The beginning of a new year might be thought the appropriate time to begin it by identifying whether we are on the right side of history or not. Nor is it the best way to think of our relation to the past. Lately it has been used as an argument for the UK remaining in Europe. To remain would be to join or continue to be on the right side of history, the Sunny Side of the Street, as we might call it. The idea is that such a surge as the Enlightenment, having begun, is inevitable, tending unstoppably in one direction. This side of history is on the move to better times, and so if we wish these times for ourselves and others, we had better get on the right side. So that dark side is destined to fail. The light side of history will succeed. Who wants to be left behind? So do not get left behind, for the Light and its forces will ultimately triumph over Darkness, reason against unreason, liberty against slavery, and so on. This is somehow connected with what Herbert Butterfield and others referred to as the Whig interpretation of history. In fact it may be said that so long as freedom of speech and the working of government and opposition in Parliament continues, the enlightened ages continue. Also linked with the winning side of history view is the idea of Western leadership and hegemony, which causes the rising sun to shine on the Sunny Side until the entire world basks in it. These are the engines of light. Currently these are the forces of globalism, international corporatism, and the waging of the war against global warming. Though it is said that we are living in a post-Enlightenment period, the confidence of the Enlightenment persists. What the inevitability of the triumph of such enlightened forces is grounded in is not made clear. For example Marxism in its pure form holds to the historical inevitability of the international revolution that will usher in classlessness, and so Nirvana. These inevitabilities are not strictly speaking fated. But such a view of history is obviously false. There is change and decay as well as periods of seeming advancement. But though history records moods, and changing habits and priorities, trends and tendencies, it does not have a side, nor two sides. It has, and has had, many sides, some of which have come to an abrupt halt and others which still run. The rise and fall of empires bear testimony to these, and empires rise and fall still. It is hard to think that we are at the end of history in this sense. The sun never set in the British Empire, but time has set on it. The belief in the course of history, if it is worth the name, is an empirical belief, based on the study of the way in which it is going, and then extrapolating that. He did not assert that history as a sequence of events has ended, but that with the course of Soviet communism being stopped, history as a fundamental clash of ideologies was no more. Fukuyama held that this was true of , when it seemed for a few moments that liberal democracy, helped by global capitalism, was dominating the globe. History and pilgrimage Is historical inevitability of any use in understanding the gospel or its spread? I am asking this not with a modernist or liberal form of Christianity in mind, but Christianity in its historic, orthodox expression. I suppose certain millennialist positions of the end of time held by such Christians may be said to take such a view. But is the idea of history having a right or wrong side part of the Christian outlook? From time to time in Christian history, there have been groups who have pinned their hopes - not usually their fears - to some passage of biblical prophecy or other. One might think too, that those who stress divine sovereignty, in providence and in saving grace, might be tempted in this direction. Because there is now no fixity between the events in history and the saving purposes of God. The only possible exception is the history of the church. But that is also rather uncertain. During the eras of special revelation "in the call of Abraham, and the history of Israel, and of course in the coming into flesh of the eternal Son, there is redemptive history in something like the usual sense of history. Through the ebbing and flowing, a trajectory of the divine redemptive purpose is discernible. Attempts to make a connection between historical states as the centuries roll, and the redemptive purposes of God are doomed. All things come alike to all: There is some other evidence in Scripture for this, in eschatological contexts. Besides these, the questions of history, its various sides and significances, matter not. Augustine of Hippo had his cap on the right way. When, therefore, death shall be swallowed up in victory, these things will not be there, and there shall be

peace – peace full and eternal. We shall be in a kind of City. Brethren, when I speak of that City, and especially when scandals grow great here, I just cannot bring myself to stop.

## 6: Inscrutability of reference - Oxford Reference

*History of Western Philosophy. Relativity Without Inscrutability. Douglas Greenlee - - Philosophy and Phenomenological Research 33 (4)*

The particular contribution to history that each moral actor makes - the unique role that he or she has to play and, above all, what will count as the "success" of the action at the end of the day - is, at the moment of decision and commitment, an object of hope, not open to historical verification before the event. The actor cannot confront the future as though it were the past extended forward, like a historian with eyes in the back of his head. The only way to confront the future is in freedom, prepared to determine the indeterminate. We look for "the way things are going" - the direction that can be read off the present. Let us call this historicism, with a reasonable confidence that our use is close enough to the centre of gravity of a rather wide usage of that term. Time, rather than essence, is taken to be the primary dimension of reality, the source of all meaning that there is, a meaning which can be displayed as "history. An attraction of historicism is that it seems to offer the possibility of dispensing with moral concepts. All we seem to need for the direction of our action is that the next step will be known in the same way as the last step - namely, by narrating the story that led up to it. What we shall do will follow seamlessly from what we have been, and the need for a decision will be avoided. What this leaves us with is action without a purpose, which is not an action at all. To purpose action, we must frame it in our minds, while it has no presence in the world, as a non-necessary event. We cannot purpose the whole of the future, to be sure, nor even much of it; a tiny fragment, comprising how we are to deploy our own freedom, is laid upon us as something we must take conscious responsibility for. The attraction of historicism is that it offers the possibility of dispensing with moral concepts. To frame it in our minds as a non-necessary event, we must conceive it as an act of a certain kind which can have, in a given context, a certain practical rationality - even if the kind the act belongs to is rare, the context exceptional, the rationality prophetic. We need to know "what we are doing. The most that narrative logic could tell us is what we were experiencing. One form of historicism, which sprang from a Reformed cultural consciousness and came to be referred to by the imperishable Scottish term "whiggery," acquired a strong philosophical resonance in the nineteenth century. It was a teleological account of history, which read the past as a self-elaborating progressive narrative. Whig history was no mere cultural aberration; it belonged intrinsically to a culture for which all study, including study of the past, must be broadly useful. The most useful thing to be drawn from history was a positive approach to citizenship in the present, appreciating the upheavals that gave birth to the present age as a painful discipline that allowed the collective acquisition of wisdom, never to be gone back on. The logic by which this optimistic civilisational historicism turned to nihilism at the end of the nineteenth century has been traced many times. And of nihilism we need only say that its re-assertion of freedom against nature could only recommend itself by floating on moral planks - such as "courage" and "honesty" - which strewed the waves after the vessel they had been part of had been sunk. To take nihilism strictly on its own terms is to agree that there is nothing to be said for it. George Grant, an underrated figure in modernity-criticism whose work might have given guidance to advocates of later "green" concerns, had Nietzsche in his sights when he declared that "the conception of time as history is Is history really a totalitarian concept, substituting for nature and de-naturing the world? The idea of history turns on the reconciliation of good and time: The Christian theologian is likely to have doubts about that, and to suggest, on the contrary, that historicism never, in any of its forms, succeeded in understanding history correctly. It could not take the tension between natural order and time with sufficient seriousness. It is possible to underestimate the theoretical demands of such a reconciliation, which is what a variety of historicisms - spinning the logic of history out of nature or thrusting a logic of history over the top of nature - have done. Every such purely historical meaning turns out to be unmeaningful. But if a reconciliation cannot be accomplished by immanent dialectic or nihilist decree, it may be disclosed to us by God, as promise. The difference between "my people" and "other people" depends on a special and particular gift, a narrative identity, and a narrative identity is a temporal meaning that is only to be received as a gift, not discovered as a truth of nature or imposed as a fiat of will. The cover of the crowd It is

not historicism as a theory, but the habits of mind encouraged by theory, that demands our attention. The theory quite easily diverts our practical attention from what it should most attend to. Announcing the transparent advent of the future, historicism actually shuts and bolts the door against the future as a horizon of action, by substituting a narratable present - that is, the past horizon of the present. The key to our conduct of ourselves is then what has just come to be - the "where we have got to" from which an illusory sense of direction can be projected into an imaginary "where things are going. The past is focussed on the immediate, the just-having-come-to-be of the present, and cannot look back to take in the full range of memory and record available to us, which might educate us about the intelligibility of events. Historicism does not, in fact, value the science of history very highly. Since narrative, to serve the turn we have in mind for it, has to reach an end right here and now, it has to be very selective narration, screening out whatever might find no authentication in "where we have got to. The roots of this theoretical false step are clear from the way it reinforces a movement of regression, shrinking back from the danger of action in conformity to the patterns of behaviour that prevail around us. We regress into the pre-reflective "We" of the collective moral subject, ensuring ourselves not only against the burden of taking thought and making decisions, but also against the risk of damaging conflict with the common opinions of our society. Such historicist relativism is the form of gnostic knowingness - a claim to have insight into the hidden mysteries of what is going on, or "what the times require" - most typical of our age, with its delusive sense of being cut off from all other ages and experiences of mankind. Circumstances may require specific and novel forms of action of us, but circumstances can be interrogated, analysed, explained and reflected on. That is why present times are hard to read, and those who pretend to read them can always pose as magi. The character of the times is yet to be determined, and that will happen precisely as a result of decisions we have now to take. To rely on the times to guide the decisions, is to commit ourselves to a circle of self-justifying sophistry. On media and mediation We find a concrete illustration of this in the role of the modern news media - especially the "old media" of newspaper publishing and broadcasting. The new media of instant electronic communications have fascinated philosophers and interpreters far more than the old, but it is the old media that tell us about the civilisation we actually inhabit rather than that which may possibly succeed it. Most political discussion focuses on the way journalists perform their role, it being assumed that the role is perfectly self-evident. What concerns me here is not so much what they do as what we expect them to do and why we expect it. There is some truth in the claim that it is we who make the media, not vice versa. The very name "media" conceals, and not innocently, the distinctive feature of this mediation - as opposed to the multitude of reflective mediations of art, history, philosophy, poetry and so on - which is its special concern with the immediate. It is immediacy that they mediate to us, keeping us in touch with what is unfolding - with the "new," the just-having-come-to-be, the past horizon of the present, not the past in its narrative depth, as tradition. What we expect of the media is to typify our reactions, to impose familiar appearances upon the unheard-of, to ensure a process of routinisation of news. Why are our first impressions of events so important to us, though even the ancient Greeks knew that second thoughts are wiser? It is because we feel our identities to be at stake. History and tradition, from which we derive identity, have to be brought up to the moment, made continuous with the present. Every culture concerns itself with news-bringing in one form or another; most other cultures have been more relaxed about it. Perhaps simply because we have the power to communicate news quickly and widely, we are on edge about it, afraid that the world will change behind our backs if we are not au fait with a thousand dissociated facts that do not concern us directly. It is a measure of our metaphysical insecurity, which is the constant driver in the modern urge for mastery. The new has no predetermined logic, so that focussing attention on it requires conceptual pre-patterning to register and control surprise and to integrate it into a narrative sequence. The unheard-of must somehow be heard of. And this is where late-modern media have established their line of supply. Devoting their full attention to the breaking wave, they echo its roar to us; we call upon them to show us the world new every morning, as though there never was a yesterday. A second feature of some importance is that they are mass media. They cater to a society "democratic" in its self-idealisation, conceiving that every member, not only a small minority appointed to the task, will share responsibility for what is done in the collective name, and therefore has a right to know. For this reason we expect the media not only to assure

access to the new, but also to regulate it - by exercising judgment as to what is true and false, what is important and what is not. There is good sense in this. If a critical mass of observers in a society will think and act solely on first impressions, those impressions must be filtered. Who, after all, would not rather be instructed by professional news-bulletins than by rumour? But the good sense is political, not pedagogical. It does not make us more judicious or reflective, but directs our reactions into predictable channels. What we expect of the media, then, is to typify our reactions, to impose familiar appearances upon the unheard-of, to ensure a process of routinisation of news. This is why actual news coverage is so small a proportion of the media product. The blurring of the boundaries between news, entertainment and commercial promotions, theoretically distinct and supposedly insulated offerings, serves the function of the social embedding of news. The celebrity is the handhold, the advertisement the bridge that connects the world we are shown to our personal interests. For filtering, categorising, bringing the unheard-of within the bounds of the heard-of, the cartoonist or the satirist who represents a dangerous tyrant as a stage-clown with his trousers around his ankles serves the purpose quite as well as a reporter in a war-zone. Frightening new horrors are written of in a consciously bland and traditional way full of mythic recognition-factors. Interpretative techniques call on a small range of typical phenomena. You and I, if we emerge for a brief moment from our customary obscurity into the public eye, will quickly be classified as devious politicians, predatory capitalists, irrelevant academics or cutting-edge boffins, heartbroken mums and so forth. The stereotype, the pre-determined classification, this is the technique that "digests" what is happening, and digests it "safely" - that is, without our having to question our view of the world. The media exist to assuage the lurking fear that democracy is an unstable mix of iron and clay which may be brought down by a well-aimed stone. The media, then, are a democratic institution. Their own account is that they protect democracy by securing a bulwark of free comment against the tyrannous pretensions of government and money. What we have most to fear, they warn us, is the erosion of their editorial freedoms - by "barons," government, big business or whatever - leaving the body politic prey to the machinations of the powerful. It would be ungrateful to overlook the element of truth in this. The media have plucked a feather or two from the proud turkey-cocks. Instead, it touches the deep politics of identity. This is what interprets us to ourselves, makes us feel at home with ourselves, represents the deeds and words we read as those of friends or enemies, moulds us into a common identity, teaches us to see ourselves as part of a shared struggle, all quite independently of what we are, what we do, what we suffer, who we share our lives with. The constructed political identity competes not only with other reflective identities - such as that we may have as Christian believers - but with the immediate identity we derive from our social setting. This is democracy understood as popular government, not as republican government. The media shore up our faith in the stability and reliability of that essential element of democratic theory - the people, the "all-encompassing something that is nothing," as Kierkegaard described it, "the public. Inevitably, then, they are parties in the struggle for popular power, soaking up whatever surplus of authority they can squeeze out of government, church and in Britain the monarchy by carefully directing suspicions in long-habituated directions. The news media can themselves be embarrassed by too much news. This is reflected in the ambiguous position of their most interesting and admirable creation, the front-line reporter, that travelling adventurer who seeks out and describes things as they happen, and "gets the story right. What we look to the media for is the construction of the world of the moment, and reporting on realities may have only tangential relevance to that. If "new every morning" is the tempo of divine grace and the tempo of our personal responsibilities, it is because the morning is a time when one can look back intelligently and look forward hopefully. It is the tempo of practical reason. It serves rather to fix our perception upon the momentary now, preventing retrospection, discouraging deliberation, holding us spellbound in a suppositious world of the present which, like hell itself, has lost its future and its past.

## 7: Inscrutable | Definition of Inscrutable by Merriam-Webster

*And he reminds us of the inscrutability of history. War and the American Presidency shines an essential light on the meaning of our history and a guide for using our understanding responsibly in meeting today's challenges.*

As is evident from this figure, RO is a substantially more energy-efficient technology for water desalination. A brief history of the development of RO membranes is shown in Figure 2, based on Baker Reid and Breton first demonstrated the possibility of desalination using polymeric cellulose films, and thus the first polymeric RO membranes were created. Loeb and Sourirajan then showed that an asymmetric cellulose acetate membrane can be used for desalination. The permeabilities of these early membranes were low, and RO membranes were considered a novelty separation technique rather than a solution to desalination. An innovation in the packaging of large membrane areas into small volumes was the development of the spiral wound module Figure 3 by General Atomics in The spiral wound configuration is now common in RO applications Cadotte ; Westmoreland Reproduced with permission from Baker Page 59 Share Cite Suggested Citation: Reports on Leading-Edge Engineering from the Symposium. The National Academies Press. Hollow-fiber modules containing thin fibers were developed a few years later by DuPont, but this configuration is less commonly used for RO. A major advance in membrane chemistry that has made possible the application of RO membranes is the development of the thin film composite TFC architecture. Cadotte patented the design for the three-layer TFC membrane that is now the industry standard. It provides high permeability while maintaining selectivity for water vs. A 20 $\mu$ m thin crosslinked polyamide layer is supported on or indeed grown from a microporous polysulfone layer that is in turn supported on a polyester fabric. The most common chemistry for modern RO membranes is interfacial polymerization, another major advance in RO membrane manufacturing. The procedure, described in Figure 5, has been the standard for making RO membranes for the past 5 decades. A crosslinked polyamide nonporous active layer is supported on a microporous polysulfone membrane cast on a polyester fabric. RO membranes are typically synthesized using the MPD aqueous monomer while NF membranes are more commonly synthesized using the piperazine monomer. TMC is used for both types of membranes. Figure 6, based on data from Gude and Elimelech and Phillip thanks to improvements in formulation, manufacturing procedures, and processes, such as energy recovery from pressurized brine. These advances rapidly enhanced sustainability and exponentially increased the implementation of these membranes for seawater and brackish water desalination as well as wastewater reuse. Page 61 Share Cite Suggested Citation: On the other hand, advances in permeability and selectivity can still yield major gains in brackish water treatment and wastewater reuse. The energy advantage is significantly lower for high-salinity seawater applications 15 percent less energy but the plant size can be reduced by 44 percent Cohen-Tanugi et al. A focus on increasing selectivity rather than simply increasing membrane permeability has been proposed in recent work as a sustainable approach to improve membrane materials Werber et al. Page 62 Share Cite Suggested Citation: Some of these advances are described below. MP channels are approximately 4 nm in length in comparison to the tortuous unconnected pores in the 20 $\mu$ m thick RO membrane active layers. Attention has recently been focused on water channel proteins called aquaporins AQP and their synthetic analogs, carbon nanotubes CNTs. AQP selectively transport water across cell membranes in many forms of life including in humans Agre They consist of narrow pores lined with hydrophobic surfaces, resulting in single-file water transport de Groot and Grubmuller ; Hinds The exceptional permeability and selectivity of AQP has led to research on their incorporation in water purification membranes Shen et al. There have been many advances since, including methods to incorporate AQP in stable lipids and lipid-like block copolymers, their packing at high density into membranes, the integration of such layers into various membrane architectures, and finally the development of a scalable membrane where AQP are inserted into the active layer of RO membranes Zhao et al. The latter has resulted in commercially available membranes at small scale, but they face significant challenges to scaleup because of concerns about stability and cost. Another advance inspired by biological channels and arguably more scalable is the development of artificial water channels and proposals to develop membranes around them Barboiu

These bioinspired channels are made synthetically using organic synthesis but have until recently been a less studied Page 63 Share Cite Suggested Citation: We recently demonstrated for the first time that such channels can approach the permeabilities of AQPs and CNTs while providing several advantages Figure 7 Licsandru et al. The channels tested were peptide-appended pillar[5]arene channels and imidazole-quartet artificial proton channels. Artificial channels provide distinct advantages for scaleup when compared to CNTs and AQPs because of their compatibility with organic solvents and chemical and biological stability. They could thus be suitable for incorporation in selective high-permeability membranes. They have been integrated into membranes, but these membranes face scaleup challenges. PAPs also have several advantages for scaleup, including high usable cross section, simple synthesis, organic solvent compatibility, and stability both chemical and biological. Figure can be viewed in color at <https://doi.org/10.1021/acs.chemmater.1c01111> Page 64 Share Cite Suggested Citation: Graphene is a single thin layer of sp<sup>2</sup> hybridized carbon that has unusual mechanical, thermal, and electrical properties and may lend itself to a variety of applications. Pores drilled into graphene may be an option for filtration membranes but currently the pores cannot be made small enough to reject salt Wang and Karnik. More practical for desalination is the use of oxidized graphene or graphene oxide sheets stacked together so that the distance between the layers can be small enough to reject solutes Mi This work is rapidly progressing and could be a new material for sustainable desalination. Fouling-Resistant Membranes A major challenge during operation of RO membranes is the deposition of colloidal materials and organic macromolecules on the membrane surface and the growth of microbes. This deposition leads to cake formation, irreversible adsorption, and growth of persistent biofilms, collectively referred to as fouling. Fouling can cause a substantial increase in power consumption due to additional resistance to flow. In addition, salt accumulates in fouling cake layers. The cake-enhanced concentration polarization and, for biofilms, biofilm-enhanced osmotic pressure Herzberg and Elimelech ; Hoek and Elimelech increase the effective osmotic pressure to be overcome, thus decreasing the driving force for membrane filtration and increasing power consumption. Several membrane modification strategies are under consideration to reduce membrane fouling in RO systems. These include the grafting of superhydrophilic or amphiphilic molecules that can prevent adsorption of macromolecules and biological cells; use of nanoparticles, carbon-based materials such as CNTs, and graphene oxide flakes to impart biocidal properties to the RO membrane surface; and use of electroactive or magnetically actuated surfaces to prevent deposition or cause cell death. Methods that interrupt or manipulate cell-to-cell communication are also being explored for biofouling control. Desalination Powered by Renewable Energy Desalination has always been considered incompatible with renewable energy infrastructure because of its energy-intensive processes Charcosset But with the rapid improvement in RO membranes and systems and concomitant decrease in energy use, more attention is being paid to the coupling of desalination units to solar using photovoltaics or wind energy sources. Page 65 Share Cite Suggested Citation: Inscrutability of desalination membranes. Although crosslinked TFC RO membranes have been used for a few decades now, the microstructural details of these membranes remain unknown. This lack of knowledge prevents the establishment of a direct link between modifications in the chemistry and microstructure that drive transport properties. Efforts are ongoing to develop tools to enhance understanding of RO membrane structure. When salt is rejected from the surface of RO membranes it forms a concentrated layer adjacent to the membrane, reducing the driving force for transport across the membrane. The thickness of this concentration polarization layer can be reduced by enhancing the back transport of solutes. Several ideas have been tested at various scales but their implementation in a sustainable manner has been challenging. Seawater intakes and discharges. A particular challenge to the development of seawater desalination plants including RO plants is the impingement and entrainment of marine microorganisms during intake to the plant. Impingement is the collision and trapping of marine organisms that are larger than intake screens; entrainment is the passage of small organisms through these screens and the subsequent destruction of these marine organisms. Also, when dense brine is discharged back to the ocean, it can have detrimental effects on the marine environment if proper mixing does not occur. Efforts are needed to better understand these challenges as well as the effect of intake designs and discharge diffusers on the marine environment Szeptycki et al. Inland desalination brine disposal. Whereas coastal plants can discharge concentrated brine to the ocean,

inland RO plants need to find a sustainable avenue to manage their brine, which could be as high as 20 percent of the feed flow. Brine minimization and beneficial reuse of brine components as sustainable alternatives to deep well disposal, disposal for municipal sewers, and use of evaporation ponds need to be evaluated carefully. Lack of chlorine resistance in polyamide membranes. But this is not an option for polyamide membranes commonly used for desalination because of their high susceptibility to damage from chlorine. Development of chlorine-resistant membranes is an important practical need. Translation of new materials. Many new materials have been developed for RO desalination, but their translation to products and use at larger scales is limited. Efforts are needed to translate innovations in materials and process design to actual products and plants. Page 66 Share Cite Suggested Citation: High-salinity streams emerge from energy operations such as hydraulic fracturing fracking , proposed underground CO2 storage, unconventional oil development, and flue gas desulfurization applications that frequently have TDS values in excess of , ppm. These pose unique challenges to RO materials, RO process components, and operating strategies. OUTLOOK Membrane desalination technology is growing rapidly and becoming a critical tool for ensuring long-term water sustainability around the world. The future of this technology is bright, and it is expected to play a major role in the resource-limited future facing the world. From atomic structure to clinical medicine. Journal of Physiology Energy consumption and water production cost of conventional and renewable-energy-powered desalination processes. Renewable and Sustainable Energy Reviews Emerging Trends in Desalination: Waterlines Report Series No. Turner, Australian Capital Territory. Membrane Technology and Applications, 2nd ed. John Wiley and Sons. Angewandte Chemie International Edition Interfacially synthesized reverse osmosis membrane. US Patent 4,, A.

### 8: Europe as Israel History : Empire

*The forces of darkness, of barbarism and superstition, are history's other side, its faltering side, the side of those intent on 'turning the clock back', impeding or interrupting and so delaying its progress.*

### 9: Inscrutable | Define Inscrutable at [www.enganchecubano.com](http://www.enganchecubano.com)

*"The Inscrutability of Moral Evil in Kant," THE THOMIST 51 (). "The Non-Moral Element in Kant's Moral Proof of the Existence of God," SCOTTISH JOURNAL OF THEOLOGY 39 (). "Faith and History: The Shape of the Problem," MODERN THEOLOGY 1 ().*

*Victims of child sexual exploitation Ma rahat kala jadu A family and a fortune The Cross and the River Sonoma Valley (CA (Images of America) Poems from the Poetical sketches. Illustrated books Science, philosophy, and the history of knowledge : Husserls conception of a life-world and Sellarss mani The Singing spirit: Early short stories by North American Indians (Sun tracks : an American Indian litera The Human Tradition in America from 1865 to the Present (Human Tradition in America) The Soviet Movie Making Machine Moths of Southern Africa Little me, BIG ME International Motor Racing Guide Problems of the developing nations Artemis fowl graphic novel eternity code Brazilian-Portuguese conversation course Advertising and Satirical Culture in the Romantic Period (Cambridge Studies in Romanticism) Organ and its masters In the hills, the cities Profound Secret, A Interpretation and understanding Quotations from Eamon de Valera Uneasy neighbo(u)rs The ugly sister The Life And Times Of Sir Peter Carew The giants pizza R[0 and deterministic models Hitlers war poets V. 11-12. Spiritual states and mystical stations Magic triumphs Kelsen, quietism, and the rule of recognition Michael Steven Green. 17 Mel and Python. English Composition Faculty Guide for Annenberg/CPB telecourse Editing files in adobe er 9 A Family-Focused Approach to Serious Mental Illness On top of the world piano sheet music Department 19 Performance pay at safelite auto glass case study Jeff clutched the railing, squeesing until his fingers ached.*