Chapter 2
Rawlsian Deliberation About Space Settlement

Tony Milligan

Abstract A genuine political realism about space settlements might allow for the endorsement of a form of settlement democracy, albeit subject to constraints. The value and defensibility of establishing any particular settlement will then depend, in part, upon the constraints which need to be brought to bear in order for survival to be possible. As a more detailed breakdown, Sect. 2.1 will try to show that although there may be strong pressures toward authoritarianism in space, some non-authoritarian political structures may nonetheless provide the most pragmatic candidate option. Section 2.2 will attempt to strengthen this claim by drawing a connection between democracy and social hope, with the latter functioning as a key aspect of any sustainable and worthwhile political culture. Section 2.3 will transition more directly to the context of space and will look at the issue of abortion in a space settlement in order to make a case for constraints upon democratic deliberation. Section 2.4 will argue that Rawlsian deliberation might provide a way for we who are not actually space colonists to realistically theorize such constitutional constraints. Section 2.5 will conclude by suggesting some space-sensitive modifications to the Rawlsian approach.

Keywords Veil of ignorance · Social hope · Rawls · Rorty · Abortion · Democracy

This is a paper about framework rather than constitutional detail, about the possibility of sustaining some form of political realism while deliberating about the unprecedented circumstances of space settlement. I want to suggest that we need a provisional exploration of how to approach the problem of extending political discourse into this new domain if we are to avoid collapsing the discussion into inspired guesswork. The dangers here are perhaps rather obvious. Consider, for example, White Mars (1999) by Brian Aldiss, a text in which constitutional discussions among the political elite of a space settlement skid enthusiastically

T. Milligan (✉)
Department of Philosophy, University of Hertfordshire, De Havilland Campus,
Hertfordshire AL10 9EU, UK
e-mail: t.milligan@herts.ac.uk

off-course and result in the creation of a Committee for Evil, dedicated to tackling the latter as a problem of much the same order as sanitation and public health. For those involved, nothing is beyond the scope of sound planning regulations.

To describe this attitude as Aldiss does is already (implicitly) to reject it. But perhaps nothing fits as a model of deliberation when space settlement is at issue. Perhaps everything that we say will be disconnected from political realities. And so, the very idea of deliberation about the political organisation of future space settlements may seem to be not just an outlier of political theory, or an exploration of counterfactuals, but rather a case of the wrong sort of science fiction. The sort that reproduces thinly-disguised versions of present day attitudes and then mistakes them for prophecy. Yet the odd thing here is that there may well be human settlements in at least the nearby regions of space in the not-so-very-distant future, perhaps not cities but something significantly larger than the International Space Station or a polar base, perhaps even stable communities with a reproducing population. Mars, for example, may well be reached before the end of the present century and settled within a timescale of further centuries rather than millennia. Although these lines are written in full knowledge that there have been and will be obstacles, setbacks and tragedies of the sort that might lead any of us to question the value of what is done, the value of exploration, settlement and especially commercial activity anywhere else but here. Such settlements, if or when established, will nonetheless allow for an existence which is very different from life as we know it. And they will also operate with some form of political organization which will be a descendant of our own flawed political practices and institutions. They will, to some extent, bear the stamp of our imbalanced political world just as our institutions and practices bear the imprint of the world of Locke and Rousseau.

And so, from the outset, we are faced with something of a dilemma: evasion of an important fact about the future (which thereby risks sleepwalking into it) and, alternatively, acceptance that fantasy is an acceptable risk (for which the Aldiss scenario stands as a proxy). I want to suggest that this dilemma can, *up to a point*, be overcome although my emphasis here is very much upon the *up to a point*. Beyond a certain level of precision, conjecture of an unmoored sort does begin to take over. Even so, this gives us room in which to operate and the possibility of a *bounded discussion* conducted in a realistic spirit. In what follows, I want to suggest that the realism which can be brought into play need not be identical to authoritarian realpolitik. Rather, and perhaps surprisingly, a genuine political realism about space settlements *might* allow for the endorsement of a form of democracy, albeit subject to various constraints. The value and defensibility of establishing any particular settlement will then depend, in part, upon the constraints which need to be brought to bear in order for survival to be possible.

As a more detailed breakdown, Sect. 2.1 will try to show that although there may be strong pressures toward authoritarianism in space, some non-authoritarian political structures may nonetheless provide the most pragmatic candidate option. Section 2.2 will attempt to strengthen this claim by drawing a connection between democracy and social hope, with the latter functioning as a key aspect of any sustainable and worthwhile political culture. Section 2.3 will transition more

directly to the context of space and will look at the issue of abortion in a space settlement in order to make a case for constraints upon democratic deliberation. Section 2.4 will argue that Rawlsian deliberation might provide a way for *we* who are not actually space colonists to realistically theorize such constitutional constraints. Section 2.5 will conclude by suggesting some space-sensitive modifications to the Rawlsian approach.

2.1 The Authoritarian Option

All talk about the politics of space settlements will, of course, be moot if no such settlements are ever likely to be built. If skepticism of the latter sort is correct then what follows *must* qualify as fantasy. And so, in a sense, everything turns upon the assumption that it is overly-pessimistic or simply mistaken about our likely future. Yet deliberation about the politics of space settlements might also be moot for the very different reason that the political structure of such settlements (whatever their size) is bound to be a system of permanent hierarchy and command modelled upon the military, or under the control of 'the company,' or subject to some other authoritarian set-up such as colonial governorship, rather like Hong Kong under the British.

This need not be an 'iron heel' option, complete with armed guards at intersections and tanks upon the lawn. (Hong Kong under British rule did not operate in that way, but it certainly was not a democracy.) Rather, the social norms, policies and practices in place might, *up to a point*, remain liberal but they would not be subject to regular democratic control. This is a familiar option which, in science fiction, is guided to some extent by dramatic necessities, by the need to set up heroes who have enough freedom to be independently-minded, but who also have something authoritarian to rebel against. The option is also, up to a point, driven by a sense of realpolitik in a world where space activities continue to be entangled with military finance as well as state policy, albeit less conspicuously so than in former times and somewhat towards the soft end of military project funding, for example, through the Defense Advanced Projects Agency. The 100 Year Starship project is a case in point. It is backed by DARPA funds. The same is true of some recent research, of a rather more ethically-dubious sort, into suspended animation. (The ethical dubiousness in question stems from the use of animals and from the potential applications of suspended animation for purposes other than interstellar travel.) Should a ready-made structure of authority be needed, or should an ambitiously democratic setup fail under extreme, unearthly conditions, there will always be a known power structure waiting in the wings, ready to take over. Indeed, this is an option which any attempt to colonise another world might have to plan for, with well laid-out criteria for when and how to shift from civilian to military control. It is difficult to imagine the U.S. or China or India failing to devise such protocols as part of any attempt to establish a stable settlement on any scale which truly merited the name.

Cockell (2013) has even suggested that a tendency towards authoritarian control, by either the state or by private financial monopolies, might well be built into the fabric of extraterrestrial societies. Control the oxygen supply in a space settlement and you will have instant control over others, an instant means to enforce their compliance. The extreme vulnerabilities of space, the fact that it can kill you in so many different ways, may generate authoritarian pressures for the sake of sheer survival. There are, however, at least two worrying aspects to such a prospect. The first is the obvious justification problem which it generates. Why, if this is the likely outcome, would anyone want to establish a permanent human settlement on another world?

Here, we might appeal to progress in the future complete with terraforming, planetary engineering and other generations who could enjoy a better life. Or, if skeptical about the latter as a somewhat rosy prospect, we might rely upon the inhabitants of any authoritarian settlement enjoying *enough* freedoms to routinely benefit from the reasonable opportunity of an approximation to a good life. The bottom line here is that this is all that any of us ever have and it might still be possible just so long as social norms remain, up to a point, liberal while politics operates in an authoritarian manner. But here we might wonder about just how broadly liberal any authoritarian system could actually afford to be. After all, the whole point about democracy is not so much the fact that it involves a procedure of majority voting. (We would not regard a political system as functionally democratic if 51 % of the population were allowed to prey upon the other 49 %.) Rather, democracy is not simply procedural but expressive. Democratic practice is, at least in part, a political expression of commitment to liberal norms such as liberty, equality and respect for others. An authoritarian system and liberal social norms would thus be in permanent tension with one another.

And this is where a second worry kicks in. Even if settlement authoritarianism were an acceptable or historically justifiable option, it might not be a stable option. It might be incapable of delivering the security that it promises. On the one hand, authoritarian political organisation might well strengthen a tendency (already conspicuous in Western liberal democracies) towards the sacrificing of liberal social freedoms in the interests of safety and security. On the other hand, even without any such tendency, and precisely because of the tension between undemocratic political systems and liberal social norms, authoritarianism is likely to generate its own counter-culture. (Bakhtin 2009 is the *locus classicus* of the claim that hierarchy of any sort operates in just this manner.)

And while, here on Earth, opposition to authoritarian control can take a long time to feed through into political upheaval, in the intensely vulnerable conditions of space any extensive and deep popular disaffection could prove lethal. Especially so, when mixed with the psychological pressures of prolonged confinement. Terrestrial experiments in enclosed living, even when they have not been disrupted by illicit vodka smuggling, suggest that extreme pressures may ensue and system collapse is never too far away. Prisons are like this too. The Robinson (2009) scenario of an absolute political meltdown with libertarian colonists confronting an uncompromising set of authorities might not be an utterly unrealistic prospect.

Given this, it seems that authoritarianism need not be trumps, even on pragmatic grounds. If it can be made to work, political legitimacy may well be the best policy and that would almost certainly mean some manner of democratic setup or, more precisely, a mixed system with a strong democratic (legitimacy-conferring) component. We do not have more than that on Earth. An element of Authoritarian political control might, therefore, remain part of the mix, but it could not overstep its proper bounds without damaging the overall prospects for social cohesion and settlement survival. Given this, an attempt at deliberation about possible democratic structures in space does not seem to be entirely redundant.

2.2 Social Hope and Unconstrained Democracy

Let us then allow that, with matters approached pragmatically, the optimal form of political organization for a space settlement might not be inherited from some authoritarian practice or institution. Rather, it might involve a variant or component of democracy, adapted in novel ways to unprecedented circumstances. Yet, at this point, we are again in danger of running out of realistic discourse. It might, again, be extremely difficult for us to anticipate such novelty without lapsing into utopian speculation or at least idealization of a sort which is a distance removed from actual political practice. The opening dilemma, the choice between evasion and fantasy, seems to resurface. And here, on the side of fantasy, we have no shortage of Utopias to choose from. We may, for example, like our utopia with a sprinkling of anarchism, like that of Ursula Le Guin's home world, an unyielding society of equally unyielding pioneers. Or we may prefer the more communist-inclined utopia of Tsoilkovsky and of perfectionist Russian philosophy. Matters then become simultaneously a matter of guesswork and the projection of current commitments into the future.

Yet it is important to bear in mind that a rejection of Utopianism, even in the context of space, need not require us to exclude all goals or idealization. We might still work within the confines of the influential vision-preserving distinction drawn by John Rawls between *ideal* and *nonideal theory*. Rawlsian ideal theory describes a 'realistic utopia,' i.e. not a true utopia at all but rather a best possible political arrangement consistent with our human character and interpersonal dynamics and consistent too with the material possibilities of the world we live in (Rawls 1999b, p. 126). Contrastingly, *nonideal theory* deals with more easily attained arrangements but under an important constraint. Such pragmatically-conceived arrangements must not conflict with the pursuit of the ideal. They must keep the possibility of, and perhaps even a move towards, a best-realizable society, in play.

This approach allows for an element of idealization, of a sort which is likely to be integral to any theorizing of the politics of space settlements, yet it is compatible with a form of political realism rather than fantasy. It also combines the advantages of pragmatism with an acknowledgment of the importance of what is sometimes called 'social hope' i.e. hope of the sort which is integral to *any* well-functioning

political society. Such hope sustains our sense of the worthwhile. It motivates agents to stand out against the worst of abuses and underpins their willingness to compromise with one another in the belief that additional gains may be made further down the line. As such it is a key part of a political culture. And it is the latter, rather than laws alone, which ultimately sustain democratic institutions.

Yet how we articulate the concept of social hope can vary greatly even if it is done in the context of pragmatic political commitment. Vaclav Havel, one of the key figures of the Eastern European revolutions of 1989, suggested that it was nothing to do with optimism. Rather, hope was all about the belief that, somehow, our actions make sense, that somehow (often in spite of evidence to the contrary) they are justified and/or rational (Havel 1986). For individual dissidents faced to with the task of making tough sacrifices during the long years of Russian dominance, a belief in such justification may have mattered more than faith in a better future to come. Richard Rorty, ever the anti-utopian pragmatist, was a little more forward looking in his articulation of social hope, suggesting that it involves a belief in, and desire for, a future that will be, *in unspecified ways*, better than the past (Rorty 1999). But such formulations may appear rather too modest, too in danger of slipping from a reasonable pragmatism into a standpoint from which the entire exercise of establishing a space settlement may seem too aspirational. They sever the very idea of such hope from any Rawlsian notion of a guiding vision.

This ideal-free hope, although born out of a pragmatic liberal tradition is, of course, familiar from political traditions of another sort. It has been associated (fairly or unfairly) with postmodernism, with the rejection of 'grand narratives,' with laissez-faire neo-liberalism, and with the idea of the open society which is not in pursuit of any special end goal (such as communism, the dictatorship of the proletariat, the truly Christian polity or the realization of Sharia Law) to which individuals might be sacrificed. Along these lines, it may seem best to let matters play out however they will, without either ideal theory or any preconceived political goal for space settlements and to trust instead to the moment-to-moment practical reason of the populus at large. Space may even seem like an opportunity for a more thoroughgoing democracy, an open-ended 'free for all' of popular discussion without any agreed destination and with few or no constraining ground rules for the process of deliberation. Although, formulated thus, an aspiration of this sort looks like it involves a special kind of idealization and perhaps a grand narrative in disguise. (Social hope of a more robust sort may then seem easy enough to send into exile. Keeping it there may be rather harder.)

There is a familiar impulse towards such an idea of unconstrained democracy in neo-liberal thought when the latter is at its most populist, in the idea that we need to cut through the red tape of procedure, and more especially through the constraints imposed by rights legislation, by some overgrown mass of rules and regulations which prevent the sensible will of the majority from being realized at the expense of some or other minority or the disenfranchised poor. (The Tea Party in the U.S., UKIP in the UK and the Abbott government in Australia are recent examples although their attacks upon rights legislation have been taken up by other and more mainstream political forces.) The model of freedom which is on offer in such a

rhetoric of liberty is decidedly negative freedom. It is *freedom from* rather than *entitlement to* some form of enabling which may place a call upon community resources or the taxpayers. Indeed, it is freedom with distributive justice out of the picture. Neo-liberal equality of this sort is largely political rather than economic, in spite of the fact that wealth grants political privileges which poverty does not. At more somber moments, the periodic resurgence of such populism may lead us towards the suspicion that one of the oldest objections to democracy (the Platonic objection) may have been correct all along: it tends towards the rule of the uninformed and the basely-manipulated, it drags us back to where the shadow-play of illusions is at its strongest.

But while there is usually an element of political contrivance in the deployment of such appeals, we might nonetheless allow that, in theory at least, a better-motivated and no-holds-barred democratic free-for-all might proceed in an informed manner, without manipulation of sorts which are familiar within our terrestrial party systems. This is an option which also has the advantage of building public deliberation strongly into the picture (one of the dominant moves within contemporary democratic theory). The idea of an unconstrained democratic free-for-all is also realistic at least in the sense that it is an option which is likely to tempt any group of colonists who are left to their own devices or placed beyond the geographical reach of terrestrial authority. Whatever agenda or instructions they are sent with may seem distant, another world may be there for the making with no political maps on tables and no need to comply with what has been determined elsewhere. Here, we may think of the rallying cry of Kim Stanley Robinson's fictional colonists in once they are safely beyond control: 'I don't think we should pay any attention to plans made for us back on Earth!' (Robinson 2009, p. 77). The lure of this thought is considerable.

But one of several difficulties for any such unconstrained option is that it simply does not yield a model of stable democratic government, and without the latter authoritarianism may result. And the reason why it is a poor model for stability is nothing to do with public engagement or the spread of deliberation beyond the bounds of political elites. (Generally, these are good-making features of a democratic system, features upon which legitimacy may depend. Referenda, voter initiatives and public for a contribute to a healthy political culture.) Rather, the problem is that a democratic free-for-all is unlikely to yield a reasonable political consensus. As soon as colonists come up against a divisive issue, any prospect for such a consensus is likely to collapse. This is not a new point, albeit it is applicable in the new setting of space. It is the central insight of classical republican political theory. When, for example, Rousseau appealed to the virtues of the people and to the *popular will* he was not appealing to an unconstructed *given*. Rather, his appeal was to a built-agreement which was shaped by a suitable set of civic institutions, practices and ground rules of a sort which would encourage social solidarity and promote belief in the reality of a *common good*, a shared condition of flourishing for which hopes might then be entertained.

2.3 Constrained Deliberation

As a case in point, an illustration of how easily a socially-unconstrained political discussion may lead to intractable division, we might consider the issue of abortion. This is, rather notoriously, a point of disagreement which pits established ideologies against one another. As such, finding a way to deal with this issue, without making divisions worse, may be a litmus test for the viability of an approach towards deliberation about the politics of space settlement.

To recap on the familiar arguments: pro-choice positions typically proceed by appeal to the accepted entitlement that we have, under liberal norms of respect, to bodily integrity. Crudely put, we own our bodies. But ownership here is too weak a concept because it is too easily countermanded. After all, your house may be subject to compulsory purchase but nothing similar applies your body. Nobody can use or harvest your organs without consent, even if doing so would not kill you but would save several other lives. Nor are the courts entitled to sentence rapists to be raped or to mandate the removal of limbs as punishment, even in the case of the most serious and deplorable of offences. Bodily integrity is, in any familiar liberal context, non-negotiable. It is basic to our conception of respect for the individual, indeed it is integral to our terrestrial understanding of what it is *to be* an individual. Under ordinary circumstances it also extends beyond life. We continue to bury useful organs and allow people to die rather than enforcing their seizure.

Anti-abortion arguments typically bypass such talk about bodily integrity or else they suggest that it is trumped by the sacredness of (innocent) human life or, in less religious terms, by a fundamental right to life which kicks in at different points in time depending upon the version of the pro-life position in question: conception, the point of viability or with the development of a central nervous system. The discussion is then shifted onto the grounds of developments in medical technology. This setting aside of the issue of bodily integrity does, at least in some cases, generate anomalies for opponents of abortion who are not motivated by religious arguments because in other contexts they too abide by the norms in question and so abortion is regarded as an exception, a special case which is special because the stakes are so high.

What consideration of these matters in the context of space settlement does is to overlay an additional set of equally conflicting considerations on top of the already established lines of division. Against abortion, it may be pointed out that becoming pregnant and carrying to term may be extremely difficult under altered gravitational conditions (Ronca 2007; Philips 2012). Abortion might then militate against group survival in ways which are more than symbolic. However, in support of a right to choose, the idea of an *in principle* opposition to abortion at whatever stage may seem unrealistic given the fact that there will always be constraints upon the carrying capacity of space settlement infrastructure. Ideology will not alter the number of people who can actually be kept alive, under tolerable conditions, at any given time. We might then be inclined to agree upon two key points. Firstly, that the basic problem here is the carrying over of too much ethical baggage from Earth. And this

is quite different from the romantic claim that ethics can start from scratch, that tables of values can be written in the morning and erased in the evening, or that terrestrial ethical norms will simply become an irrelevance elsewhere. Rather, it is the more restricted point that one or both sides in such debates may need to shed at least some of their more *situation-sensitive* conceptions of what counts as right and wrong if enough of a consensus about workable compromise options is to be secured.

Secondly, and more generally, getting political agents to surrender, depart from or otherwise qualify some of their terrestrial attitudes may be all the more important if, as has been suggested elsewhere, deliberation about ethics and/or politics in space is *generally* or regularly liable to be dilemmatic (Milligan 2011, 2015; Schwartz 2014a, b). And so the abortion issue may turn out to be typical rather than atypical of the more difficult social issues that space settlement is likely to generate. In the context of space politics, dilemmatic may equate with *dangerously dilemmatic*. And here, the suggestion is not that diversity is bad, in space or anywhere else, but rather that ways of avoiding utterly intractable disputes about *fundamental* policy (such as settlement reproduction) may be a basic requirement for survival.

Democratic political deliberation may then need to proceed under the influence of mechanisms, formal and otherwise which can help to promote a workable level of compromise and consensus. More precisely, there may need to be constitutional constraints upon practical deliberation in order to help us screen-out some of the familiar terrestrial preconceptions which would prevent a workable compromise from emerging. *In extremis*, arguments from one section of the political community that another section are vermin should not make it onto the policy agenda. And this is rather different from merely suggesting that such arguments should merely be rejected whenever raised. This, in a sense, is continuous with some already existing aspects of terrestrial political practice which screen out socially corrosive arguments. In other words, democratic political deliberation as we know it is *never* the free-for-all towards which a neo-liberal populism aspires. There are always constraining rules and norms built into discussions, rules and norms which are set formally by acceptable practice and informally by the prevailing political culture. Such constraints can, of course, be a mechanism for discursive conservatism but they can also be an important mechanism for social solidarity.

2.4 The Rawlsian Device for Constitution Making

One way to think about such mechanisms (not the only way, but a useful way) is in terms of a settlement constitution which places restrictions upon what community members can enforce and upon which individual entitlements can be modified by regular (non-constitutional) law. However, if we are to engage in realistic deliberation about what might be included within such a constitution then we too might need to abide by some screening mechanisms, albeit not necessarily the same ones

which would shape political practice within a space settlement, and not necessarily those which might be suitable for terrestrial politics as it is currently practiced.

The constraining option that I have in mind is a version of the Rawlsian 'veil of ignorance' (Rawls 1999a, b). John Rawls invites us to imagine an original position, a situation where agents engage in deliberation prior to the establishment of a political community, and where, as self-interested agents, they would discuss possible social arrangements and basic principles of justice without knowing where they would be situated in the society that results. All these agents would take into this original condition would be their self-interest, their bare rationality and rudimentary sorts of social knowledge of a sort which is basic to an understanding of the bounds of the possible. All special attachments and affiliations, even knowledge about the agent's own gender, ethnic background and physical characteristics, are to be bracketed out of the picture.

Here, in addition to what is made explicit by Rawls, I want to suggest that there is an additional implicit commitment to the deliberators being in possession of basic knowledge about the material environment in which they live. (For example, whether or not the local gravity, levels of radioactivity or chemical atmosphere are such that they would pose problems for reproduction.) The rationale for this extension of Rawls is much the same as the rationale for including the basic social knowledge clause. Rudimentary environmental knowledge is necessary because the veil of ignorance is a device for building an ideal theory and not a true utopia. The results of deliberation must therefore abide by the principle that *ought* implies *can* and we will simply not know what can be done unless we also know various things about the material circumstances in which we are situated. While explicit provision for this sort of knowledge is usually absent from accounts of the Rawlsian original position, it is only missing because of the assumption that the world in question will be our own.

Behind such a Rawlsian veil of ignorance, in order to secure our own well-being, agents would agree to the fullest *possible* system of liberties which was consistent with liberty for all. Or so Rawls believes. Moreover, he holds that agents would also try to minimize the harms to which they might be exposed by agreeing to inequalities in the distribution of goods only if they happened to improve the position of the least well-off. (Always bearing in mind the possibility that the least well-off might be themselves.) This is the so-called 'difference principle' and it will figure again below. Backing up claims about political principle will require us to show that agents under such veil of ignorance circumstances might well agree to the principles in question. One strong advantage of this approach, at least as far as the generation of compromise and consensus goes, is that it provides a way of making sense of what individual rights we should acknowledge without appeal to classical Lockean political theory and to the idea of natural rights, the idea that rights are in some way built into the fabric of nature. Rather, although there can still be ethical truths, what makes them true may now be understood in broadly *constructivist* rather than *naturalist* terms, as a matter of what suitable, unbiased rational agents would ordinarily agree to and what they would ordinarily accept as a reason for action. This may not yield a conception of ethics which plumbs the metaphysical depths but, here, we may be inclined to say 'Who could ask for anything more?'

Critics have, however, pointed out that, in spite of its goal of circumventing bias, the Rawlsian veil of ignorance works suspiciously like a device for turning out liberal principles. And, in a sense, that is exactly how it does operate. Rawls does not claim comprehensive value neutrality but instead accepts that the principles of justice which his thought experiment yields will always depend upon how the original position is actually set up. It will depend, for example, upon exactly what sort of basic or minimal knowledge and commitments are taken behind the veil of ignorance and what is pared away. Change the starting conditions and a different result may then ensue. However, for Rawls, the choice of initial conditions is not arbitrary. Instead, the favored conception of the original position is to be shaped by a method of 'reflective equilibrium.' The method in question appeals to intuitions in the full knowledge that they are simultaneously unreliable *and* indispensable. We need them, because deliberation must begin somewhere, but we also know that they can be misleading or unfair. (Intuitions about race and justice in the antebellum-South might not have been an ideal guide to action.) And so, instead of trusting our intuitions blindly, we need to use them in order to shape our theories and then use our theories, and requirements of consistency, in order to shape our understanding of which intuitions are reliable or at least plausible. That is how ethical and political theory works.

What makes this entirely framework problematic when reasoning about terrestrial politics is that our intuitions and theories will always be skewed by the actual knowledge that we have about who we are and about where we (and those we most identify with) are situated in society. It will yield a semblance of objectivity where there is none. However, with regard to any future space settlement this would not so obviously be the case. Indeed, none of us knows anything about our situation in such a future society because we do not happen to have one. We are deliberating about the future of others, perhaps not very distant others but perhaps they may be distant enough to counteract certain kinds of worrying partiality.

What we might then expect from agents behind a veil of ignorance, who are not utterly wedded in advance to any doctrinaire position but who are committed to establishing a *sustainable* space community, is a reasonable acceptance that viable principles of justice and ethics require a sustaining material context. However, the material context for certain kinds of familiar ethical standpoints might simply not be available. Determining whether or not it was would be a quasi-empirical matter, dependent upon basic environmental knowledge. Such standpoints, even if they form part and parcel of our everyday terrestrial outlook, should not then qualify as part of an ideal theory because movement towards them in the given otherworldly situation might be well-motivated but socially destructive. As a matter of clarification, this is *not* a reversion to what Stephen Baxter calls the 'cold equations' of utilitarianism, but rather a basic adequacy condition for political realism which applies as much on the Earth as it does elsewhere (Baxter 2014). Even here, the only viable ethical options are ones which we can actually live by. And, as below, so above, or at least 'so elsewhere.'

This will lead to concessionary moves from differently motivated individuals. For example, while I happen to be a fairly radical egalitarian with regard to terrestrial

politics, I should perhaps be ready to concede that a reasonable, non-doctrinaire, agent deliberating behind a veil of ignorance might well hold that such egalitarianism would not be viable as part of the ideal theory *for some particular kind of world* in the light of the information that we know about it. And this is the same as saying that we would need to know what any given world was actually like before we could say *for certain* that egalitarianism was possible there. Similarly, I hold very firm views about abortion here on Earth, along the lines of the bodily integrity argument and, with Rawls, I suspect that agents deliberating behind a veil of ignorance about *terrestrial* circumstances would hold to some variant of the same position. But it is by no means obvious that they would continue to do so irrespective of all possible alterations that might be made to the basic social and environmental knowledge which they had to work with. And to say this is to accept (reluctantly) that a liberal attitude towards bodily integrity might not be viable under *all* of the varying conceivable circumstances which a space settlement might have to face. Whether or not any particular rights of bodily integrity could reasonably be sustained as part of the situation specific ideal theory of justice would depend again upon the basic *situational* information that deliberators have to go on and the intractability of the problems faced. It is not something which could be determined a priori, in advance and independently of both social and environmental knowledge.

If correct, this will have serious repercussions for what we, in the here and now, aspire towards. The very fact that abortion rights might then have to be compromised, and perhaps indefinitely so, if a settlement is to survive (particularly in the case of intractably remote or isolated settlements) could shape our attitude towards how worthwhile the creation of a space settlement *in such places* might be and whether or not we terrestrial agents should ever support it and thereby condemn future humans to a partly-illiberal predicament. The creation of any settlement with a built-in requirement for norms which are radically different from our own would be a serious matter and might be difficult to justify. Conversely, those who are thoroughly committed to an unbending anti-abortion stance on Earth might have to concede its impracticality under at least some conditions of *sustainable* space settlement. Failure to make such a concession would surely involve a divergence from what could be affirmed by any non-doctrinaire agent deliberating behind a veil of ignorance but given unfavorable basic knowledge about social and environmental realities, reproductive options and population limits. And this too might give the advocates of a committed anti-abortion stance a reason to consider the advisability of establishing space settlements in a least some places, under some circumstances, because of the tragic dilemmas that their creation might help to generate.

2.5 Qualifying the Veil of Ignorance

In a sense, I am suggesting that in response to the dilemma which involves having to choose between evasion about the future or the risk of fantasy, we might run a Rawlsian veil of ignorance thought experiment, but only in a modified form and as

an orphaned device, one which can survive the demise of various background commitments which helped to bring it into being. This is all the more important because, were we to be consistent Rawlsians through and through, it is not immediately obvious that we would be in a position to engage in space settlement at all or in a position to apply the Rawlsian machinery in order to make sense of the relevant principles of justice. Other attempts to appeal to Rawls have been equally tentative and guarded. Schwartz (2014b) has recently pointed out that human activity in space might tend to increase inequalities without improving the position of the least well-off. In which case, they would conflict with the difference principle. And arguably, this has, at least sometimes, been the case although Schwartz holds that there is an available and sufficiently Rawlsian solution.

Perhaps more of a problem for a consistent Rawlsian is the fact that Rawls always had strong reservations about using the veil of ignorance in order to reason about justice in relation to other creatures and future generations because they could not participate in here-and-now deliberation (or any deliberation at all). And so their inclusion must always compromise the veil of ignorance by idealizing it to a greater extent than Rawls was prepared to countenance. Such an approach also generates a problem of authority. If the reasoning agents are not pared-back and more rational versions of ourselves then why should *their* agreements be authoritative for *us*? Even so, the reasons for such exclusions are notoriously controversial and Rawls may well have been wrong about exactly what his own theory implied in special cases.

Finally, I will suggest that there is a significant adjustment which needs to be made to the veil of ignorance in light of the kinds of intractable vulnerability in space to which Cockell (2013) has drawn attention. And here, I do mean an adjustment and not a simply an extension of the sort which is required to secure the inclusion of basic environmental knowledge. The adjustment concerns the community-mindedness of deliberators as opposed to their motivation by self-interest. While the right kind of ethic for space settlement might be, as Arnould (2011) has suggested, a 'frontier ethic,' it would be misleading to press familiar homesteading analogies with familiar representations of the U.S. frontier too far. And not simply because of the familiar ethical criticisms of colonizing already-inhabited territory at the expense of an indigenous population. While the U.S. frontier encouraged an ideology of sturdy individualism, albeit at odds with the overall realities of community dependence, the notion of the radically independent agent, the lonesome cowboy, makes very little sense in the space context. Within a settlement, at least during any early phase of colonization (i.e. prior to mass communities, multiple cities or extensively inhabited worlds) there can be no space cowboys unless they happen to be maintained at the community's expense, as a luxury. And this is a rather unlikely scenario. The range of human interdependencies, from the skills that agents would need to acquire through to the roles they would be need to play for the sake of group survival, is far too complex and tightly interwoven to allow room for drifters and agents who wish merely to 'do their own thing' underneath the starry skies above.

When we reflect upon considerations of this sort, we can begin to see just how strong the pressures towards authoritarianism might be. We may also be well placed to recognize that the Rawlsian decision to take only the motivation of self-interest

behind the veil of ignorance, rather than a mixture of self and other interest, may not yield enough of an understanding of the kinds of solidarity and community identification which are likely to be necessary for group survival. The difficulty of imagining such a group-oriented mindset, a real difficulty from the standpoint of a liberal and strongly individualist culture, can be addressed, *up to a point*, if we assume that the deliberating agents who operate behind the veil of ignorance are allowed to see themselves from the outset, not just as contracting individuals but as the bearers of a shared humanity. Although what this involves may be a subject of dispute, the option which I have favored elsewhere is one which closely connects an understanding of our humanity with a sense of our shared vulnerability (Milligan 2014). And this leads me to suggest, tentatively, that the right kind of initial ethic for the space frontier may well be, as Jacques Arnould claims, some qualified form of 'space humanism.' (Arnould 2011, pp. 121–131). Or, at the very least, it may draw something from the latter. And the relevant conception of our shared humanity may, in turn, involve an orientation towards shared origins, and thus a sense of connection to a distant Earth. It may even involve a sense of connection to earlier generations of deliberators such as ourselves, reasoning about space, but doing so in the dark and under all manner of epistemic constraints.

Bibliography

Aldiss, B., & Penrose, R. (1999). *White mars*. London: Little Brown.

Arnould, J. (2011). *Icarus' second chance: The basis and perspectives of space ethics*. New York: Springer.

Baxter, S. (2014). The cold equations: Extraterrestrial liberty in science fiction. In C.Cockell (Ed.), *The Meaning of Liberty Beyond Earth* (pp. 13–31). Heidelberg, London, New York: Springer.

Bakhtin, M. (2009) *Rabelais and his world*. Bloomington: Indiana University Press.

Cockell, C. S. (2013). *Extra-terrestrial liberty*. Edinburgh: Shoving Leopard.

Havel, V. (1986). 'The politics of hope' in Havel. *Disturbing the Peace.* 163–205.

Milligan, T. (2011). Property rights and the duty to extend human life. *Space Policy, 27*(4), 190–193.

Milligan, T. (2014). Fear of freedom: The legacy of Arendt and Ballard's space skepticism. In C. Cockell (Ed.), *The Meaning of Liberty Beyond Earth* (pp. 33-45). Heidelberg, London and New York: Springer.

Milligan, T. (2015). *Nobody owns the moon: The ethics of space exploitation*. North Carolina: McFarland.

Philips, R. W. (2012). *Grappling with gravity: How life will adapt to living in space*. New York: Springer.

Rawls, J. (1999a). *A theory of justice* (2nd ed.). Oxford: Oxford University Press.

Rawls, J. (1999b). *The law of peoples*. Cambridge: Harvard University Press.

Robinson, K.-S. (2009). *Red mars*. London: Harper Voyager.

Ronca, A. E. (2007). Effects of spaceflight and altered gravity on reproductive processes of female mammals. *Gravitational and Space Biology Bulletin, 20*(2): 97–98.

Richard, R. (1999). *Philosophy and social hope*. London: Penguin.

Schwartz, J. S. (2014a). Prioritizing scientific exploration: A comparison of the ethical justifications for space development and for space science. *Space Policy 30*(4), 202–208.

Schwartz, J. S. (2014b). Fairness as a moral grounding for space policy. C.Cockell (Ed.), *The Meaning of Liberty Beyond Earth* (pp. 69–89). Heidelberg, London and New York: Springer.