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Pensées

Canadian Undergraduate Journal of Philosophy
Journal canadien de philosophie étudiant

Vol. 1, 2000



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McGill University

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Pensées would like to thank the following contributors for their generous financial support:

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Pensées is published once a year. We accept submissions in either English or French from all undergraduates across Canada. Please mail submissions, comments, questions or suggestions C/O The Canadian Undergraduate Journal of Philosophy

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Montreal, Quebec, H3A 2T7

Or by e-mail to: CUJP@hotmail.com

ISSN: 1492-2797

Printed and bound by University of Toronto Press Incorporated.

Pensées

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Introduction

It is with great pleasure (and relief) that we introduce *Pensées: The Canadian Undergraduate Journal of Philosophy*. The purpose of the journal is three-fold. First, we hope to establish an annual forum for excellent Canadian undergraduates to publish their work. Second, we want to provide undergraduate students with insightful perspectives on a wide variety of philosophical ideas. Finally, by distributing the journal across the country, we aim to provide both a standard and a resource for writing undergraduate philosophy papers.

We would like to thank everyone who submitted essays and helped make this inaugural year of *Pensées* a success. In selecting papers for publication we looked for work that exemplified the characteristics of a good undergraduate philosophy paper, such as clear exposition of ideas and coherent argument. In addition, we looked for a degree of originality, which in this case simply means that we favoured those papers that seemed to evoke the most interest and philosophical debate amongst the editorial board. The five essays published here more then meet these criteria.

This year's papers reflect the broad range of topics that fall under the domain of philosophy including: philosophy of mind, medical ethics and political philosophy. In *Reining in Chalmers: On the Logical Possibility of Zombies*, Chris Mathieson (Acadia University) argues that Chalmers has failed to demonstrate the logical possibility of zombies and discusses the implications of such a failure for reductive explanations of consciousness. In *A.N. Prior and the Metaphorical Conception of Time*, Reena Goyal (University of Toronto) refutes Prior's attempt to break down both our common sense notions of the passage of time and his arguments in favour of a A-series view of time. *Locke's Principle of Self-Consciousness and the Attempt*

to Provide and Empirical Account of Psychological Processes, by Josh Morhart (University of Western Ontario), attempts to demonstrate an inconsistency in Locke's theory of mind, insofar as Locke endeavours to construct a wholly empirical account of the mind while maintaining an *a priori* principle, namely his Doctrine of the Transparency of the Mind. Jakeet Singh (University of Western Ontario), in his paper *A Limited Plurality*, argues that John Rawls over estimates the amount of plurality possible in his conception of society in *Political Liberalism*. Finally, in his paper *Ethical Considerations of Human Genetic Engineering*, Andres Hannah-Suarez (McGill University) outlines the general issues surrounding the four different types of human genetic engineering.

Comme la présente entreprise a été une première pour nous, les derniers huit mois ont resulté en un processus d'apprentissage à tout le moins intense. Nous sommes satisfaits de notre produit final, mais nous sommes conscients qu'il y aura place à l'amélioration dans les prochaines éditions du journal. Premièrement, malgré nos efforts pour faire de *Pensées* un journal bilingue, nous n'avons reçu aucune soummission approprié en français. Une de nos priorités pour le journal de l'année prochaine sera de changer ceci. Nous encourageons les soummissions en français et espérons que la prochaine édition de ce journal pourra être plus représentive des divers programmes de philosophie à l'échelle du Canada, incluant essais et notes tant anglais qu'en français.

In addition, we hope that next year's journal will include a thought provoking interview with a prominent Canadian philosopher. Finally, we would like to make the journal genuinely Canadian, not only in its content, but also in its production. Thus, we hope to expand our editorial process to include students from other universities and take advantage of different universities' resources and perspectives. By way of this last point, if you are interested in reading for next year's journal, please contact us by regular or (better yet) e-mail. Peripherally related to the journal itself, we intend to set-up a *Pensées* web page this summer that will post information about the journal, including news of deadlines and guidelines for submission.

We would like to thank those people who have been tremendously supportive and helpful in getting this project off the ground. We appreciate the help of faculty members and students at other universities who disseminated information about the journal and encouraged submissions within their respective departments; Professor Michael Hallett, our faculty supervisor at McGill, for supporting this project from day one; Barbara Whiston and Angela Fotopolous; Reg Hunt and Tami Ehrlich at U of T

Press for accepting this project and patiently answering our questions about printing and publishing. Finally, we would like to thank Francois Tanguay-Renaud, Phil Lagasse, Justin Patrie and Professor Allen Patten, all of whom readily helped with different aspects of the journal at our request.

Finally, we welcome all feedback, comments and suggestions that will help us improve the journal. We hope you find *Pensées* a thought provoking and informative read and look forward to promoting the high level of Canadian undergraduate philosophy for years to come in the pages of *Pensées*.

Kimberley Brownlee
Daniel Groll

A.N. Prior and the Metaphorical Conception of Time

Reena Goyal, University of Toronto

Abstract: In his article *Changes in Events and Changes in Things*, A.N. Prior sets out to disprove the B-series view of time. More specifically, he argues against the existence of both past and future dimensions by attempting to discredit our common-sense notion of the passage of time. Prior contends that our conception of the passage of time is, at best, metaphorical. He does this by, first, arguing that the passage of time is devoid of a genuine *movement* of events from the future to the past and, second, that it lacks a genuine *change* in events. Nevertheless, it is not clear that Prior has provided sufficient evidence in support of this central thesis, since it is unclear whether Prior has genuinely uprooted the plausible existence of a past and future or if he has instead simply redefined them from the subjective viewpoint. In addition, it is questionable whether he has provided any substantive evidence for the existence of a present dimension of time that is in some manner ontologically distinct from the past and future. Lastly, Prior's article fails to account for the existence of receding events independent of the subjective, perceiving agent.

A.N. Prior defines the passage of time as our conception of events moving from the future to the present to the past or, put simply, "becoming more past." He contends, however, that this conception is metaphorical at best insofar as past and future dimensions of time do not really exist. Prior supports his position by showing, first, that the concept of the passage of time is devoid of a genuine *movement* of events from the future to the past and, second, that it lacks a genuine *change* in events in and of themselves. I will begin my evaluation of Prior's thesis by briefly explicating his argument. I will then move on to show that he has not provided sufficient evidence for the rejection of a past and future altogether but, rather, he can be interpreted to have merely redefined them so that they exist only from

a subjective standpoint. Next, I will attempt to demonstrate that Prior has failed to prove adequately that his depiction of the present enjoys a privileged kind of existence that thereby distinguishes it from past and future dimensions of time. Finally, I will show why Prior's metaphorical conception of the passage of time is further limited insofar as it cannot account for the existence of receding events independent of the subjective, experiencing agent.[1]

I. Prior's Metaphorical Conception of Time

No Genuine Movement of Events

Prior attempts to elucidate what he believes to be our misguided notion of a genuine movement of events from the future to the past by showing how it is inherently connected to our conception of change. He begins by explaining that people usually understand a thing or an event to undergo change *only as it is occurring*.[2] For instance, in his example of the death of Queen Anne, it is abundantly clear that the occurrence of the death in and of itself is constitutive of a change, namely, the transition from being to not being a live sentient being. Yet, once this transition has been completed, we no longer perceive this event (i.e. her death) as being capable of undergoing any further change. Next, explains Prior, we perceive the occurrence of an event to be equivalent to the existence of that event; the occurrence of an event is its manifestation in existence. He states, "... in fact the presentness of an event just *is* its happening, its occurring ..."[3] So, because (1) events change only as they occur and, (2) events occur if and only if they exist, Prior concludes (3) events change only as they exist. However, Prior continues, we generally think of changes as analogous to processes insofar as they generally exist or occur over some "length" of time. So, in order to make room for events to change, Prior claims that we posit the past and future dimensions of time and, in turn, perceive events as undergoing a process or change of "becoming more past." Hence, we (mis)conceive the passage of time as a movement of events from a future to a present to a past.

According to Prior, then, both dimensions of the past and future are superficial. More specifically, they are for him merely products of the "historical accident" of how we happen to use language; our perceptions of an existing past and future are a result of using tensed language to describe what are really, for Prior, present events. For example, in order to articulate the event of my eating Corn Flakes at time, t1, I might state "I

am eating Corn Flakes." Yet, in order to describe the same event at time, t2, (where t2 is some point in time after I have stopped eating Corn Flakes), I use the proposition "I *was* eating Corn Flakes." Prior points out that these kinds of tensed verbs (i.e. "was") can be readily replaced by adverbs so as to reformulate propositions into their original present tense. So, by adding the adverb "It was the case that" to the original proposition, we arrive at "(It was the case that) I am eating Corn Flakes" instead of "I was eating Corn Flakes." By showing that tensed propositions can be reformulated into the present tense, Prior thinks that he has provided evidence for the contention that our conceptions of an existing past and future are false. Following St. Augustine,[4] Prior concludes that the only real or existing dimension of time is the present. He asserts: "The past is not the present but it *is* the past present, and the future is not the present but it *is* the future present."[5] Thus, Prior concludes that our conception of the passage of time does not denote a genuine movement of events from the future to the past.

On the one hand, events undergo the change of "becoming more past" within some length or span of time. But, on the other hand, there only exists the single, present dimension of time. How can Prior consistently maintain both propositions? That is, how can Prior suggest both that events move from one state of existence (becoming more past) to a different state of existence (becoming even more past) and that there exists no past for these events to move into?

No Genuine Change in Events

According to Prior, when we speak of an event receding further and further into the past or, "becoming more past," we are not really talking about a change in the event in and of itself. Rather, we are discussing a change in an agent's *relation* to the said event. Returning to the previous example, event *e* is properly communicated as "I am eating Corn Flakes" at time t1 (where t1 is simultaneous with my eating Corn Flakes). However, the same event is also described by the proposition "(It was the case that) I am eating Corn Flakes" at t2 and, furthermore, is also applicable at every point in time thereafter (i.e. t3, t4, etc.). Yet, even though the exact same sentence can be used to describe *e* at both t2 and t3, each utterance signifies something that the other does not. The utterance at t3 signifies that *e* has receded further into the past than does my utterance at t2. According to Prior, this is because the sentence "(It was the case that) I am eating Corn Flakes" is not about the sentence in and of itself

but, rather, it is "about me."[6] That is to say that the distinction between my utterance at t2 and my utterance at t3 lies in the difference between *my relation* to *e* at t2 and my relation to *e* at t3. The difference is that there is a wider span of time between the occurrence of my eating Corn Flakes and my position at t3 than there is between the occurrence of my eating Corn Flakes and my position at t2. An event, then, "becomes more past" only insofar as my present relation to it becomes more past. By showing that events do not undergo the change of "becoming more past" in and of themselves but, rather, that it is the agent's relation to these events that undergoes this change, Prior thinks he has solved the problem of how existing events can change in a single, present dimension of time. Since our conception of the passage of time, then, consists neither of a genuine movement nor a genuine change of events concludes Prior, our conception of a passage of time is merely figurative.

It is imperative, however, that the reader grasp the implications of Prior's central tenet, namely, that the only real or existing dimension of time is the present. For Prior, the aforementioned t1, t2 and t3 are all points of time *in the present*. So, like events, my existence or occurrence of being also manifests itself only in the present. As such, Prior has extended the present dimension of time such that it is no longer comprised of a single moment or unit of time but, rather, is made manifest throughout the entire lifetime of the agent. Thus, it is precisely by defining the existence of receding events with respect to their relation to the agent that Prior has made room for a past present and future present through which events can undergo the change of "becoming more past." It is by establishing a fundamental connection between the existence of receding events and the existence of an agent that Prior is able to posit these events into the (agent's) present. Hence we finally arrive at the culmination of Prior's A-series view of time[7] where all events are located only in reference to a dynamic and constantly changing "moving now"– a moving now that is dictated by my movement such that my relations to events rush past me from the future present to the past present.

II. Prior's Subjective Dimensions of Time

According to Prior's picture, then, whether a given event exists in the past present or future present depends on its relationship to what I am currently doing. So, the sentence "(It was the case that) I am eating Corn Flakes" is true at t2 only if I am no longer eating Corn Flakes at t2 (but was

at some prior moment, t1). That is to say that whether an event is placed in the future present or past present depends entirely on the span of time that has either yet to come or has otherwise passed between that event and what I am currently doing. Put differently, as an increasing number of events comes into existence between the occurrence of *e* and a given time, t, *e* recedes further and further into the (present) past. Yet, if this is the case, all Prior's theory has really done is reduce an objectively existing past and future to a subjective past and future that obtain existence only from the standpoint of the experiencing human agent. This point is nicely captured in William Grey's description of David Lewis' metaphysical conception of time, which, like Prior's, rejects the reality of a future and past. Grey asserts,

> Pastness, presentness and futurity are not objective features of reality but reflect only the perspective on the facts which is the standpoint of the experiencing subject. The experience of a changing present *does not reflect a change in facts at all, but only a change of chronological perspective...* [8]

So, at best, Prior's theory has provided evidence for the rejection of an *objective* existing past and future but, has not thereby proven that the (present) present enjoys a (albeit subjective) privileged kind of existence that distinguishes it from the past present and future present.

III. Prior's Privileged "Present Present"

Prior's argument contends that receding events exist only insofar as the agent's relation to them posits them into the present. My life-long span of existence, or my occurrence of being, is what facilitates particular events to obtain existence after they have ceased to occur in and of themselves. But, then, is not my existence, or occurrence of being, a kind of extended event? That is, given Prior's definition of an event as something that happens or occurs and, in turn, manifests itself in existence, it seems that my entire being must also amount to a kind of extended, constantly changing event.[9] If this is in fact the case, then it seems that by indexing events in relation to me, Prior is ultimately indexing events in relation to other events. But, as Paul Horwich sets out in his book, *Asymmetries in Time*, locating events in time in relation to one another just *is* the B-series view of time where all three dimensions of past, present and future are equally real (or non-real):

Notes

1 For the sake of completeness, it should be noted that Prior's article also served as a point of departure for the pervasive debate concerning the plausibility for the motion of time. (For a further discussion and critique of Prior's position on this issue, please see J.J.C. Smart's article *Time and Becoming* in *Time and Cause* by P. van Inwagen, ed. 1980. Dordrecht: D. Reidel Publishing Company.)
2 A. Prior, "Changes In Events and Changes In Things" *The Lindley Lecture* (Kansas: The University of Kansas, 1962) 3
3 *Ibid.* at 4.
4 In the eleventh chapter of his *Confessions*, St. Augustine states, "I confidently affirm myself to know that if nothing passes away, there is no past time, and if nothing arrives, there is no future time,...At the moment when time is passing, it can be perceived and measured. But when it has passed and is not present, it cannot be...Therefore, wherever they [past and future events] are, whatever they are, they do not exist except in the present". St. Augustine, *Confessions*, trans. H. Chadwick (Oxford: Oxford University Press, 1991) 230–4.
5 *Supra* note 2 at 8 (italics original).
6 *Ibid.* at 9.
7 Proponents of the A-series view of time argue that the only existing dimension of time is the present. As such, all events are located only with respect to a "moving now" and, similarly, identified as before, simultaneous or after "now". Conversely, supporters of the B-series view of time hold that there is no metaphysical distinction between the past, present and future. That is, although there may be an epistemological difference insofar as we have an asymmetric knowledge of past events and not future events, all three dimensions of time are equally real.
8 W. Grey, "Troubles with Time Travel" (1999) 74 Philosophy 59, (italics added).
9 One might rebut that the human entity which expands over such an extended period of time cannot by itself constitute a single event. Yet, Prior himself attests to the notion that events/changes can go on for any length of time. He states, "...it sounds queer to talk of a change [event] changing. This queerness, however, is superficial. When we reflect further we realize that changes do change, *especially if they go on for any length of time*" (italics added).
10 P. Horwich, *Asymmetries in Time* (Cambridge: MIT Press, 1978) 20, (italics original).
11 *Supra* note 2 at 11, (italics original).
12 *Ibid.* at 13.
13 *Ibid.* at 11.

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Reining in Chalmers: On the Logical Possibility of Zombies

Chris Mathieson, Acadia University

Abstract: In his book *The Conscious Mind*, David Chalmers argues for the logical possibility of zombies. According to Chalmers, if zombies were logically possible, it would mean that phenomenal consciousness shared no necessary link with physical features in the world and, by extension, that consciousness could not be explainable reductively in physical terms. By taking advantage of a distinction he raises in one of his newest papers, entitled "Does Conceivability Entail Possibility?" this paper argues that Chalmers fails to provide an argument that is adequate to guarantee the logical possibility of zombies, and hence, fails in using the zombie argument as a critical objection to the possibility of a reductive explanation of consciousness.

In the third chapter of his book *The Conscious Mind*, David Chalmers provides five arguments supporting his claim that consciousness cannot be reductively explained. This paper will examine the first of those five arguments – the "zombie" argument – and show that Chalmers fails to guarantee the truth of his conclusion by overestimating the credibility of his intuitions in his argument. Instead of battling one set of intuitions (ours) against another (Chalmers') – as often seems to be the strategy in contemporary arguments on consciousness – we will examine the intuitions to which Chalmers appeals and attempt to ascertain their credibility.

What are zombies? The notion of a zombie is the notion of a thing that is functionally and psychologically identical to us, but not phenomenally aware. In other words, zombies walk around and do exactly as we do, react in the same way to every stimulus and generally show every sign of being exactly like us. The only difference is that a zombie is unconscious. There is nothing that it feels like to be a zombie; if you could somehow partake in the "mental life" of a zombie, you would experience no "redness" when looking at a rose, for example. It is traditionally granted, for

the sake of the argument, that zombies are also physically identical to us – they have the same DNA, the same configuration of cells, the same neural pathways, etc.. Zombies could provide you with a description of the zesty taste of lemon sherbet, for example. They could paint a landscape in the style of the Impressionists. They could even tell you what it was like to be in love. Despite this, they would lack phenomenal awareness.

The most important question for Chalmers with respect to this issue is whether we can actually conceive of zombies. If we can conceive such things, as Chalmers insists we can, then, says Chalmers, they are logically possible. "The question is not whether it is plausible that zombies could exist in our world, or even whether the notion of a zombie replica is a natural one," argues Chalmers; "the question is whether the notion of a zombie is conceptually coherent."[1] Furthermore, he argues that the logical possibility of zombies requires us to accept that we will be unable to explain consciousness reductively, i.e. wholly in terms of simpler or more basic physical entities, because it shows that there is no logically necessary connection between phenomenal consciousness and the physical world.

We can spell out Chalmers' argument from *The Conscious Mind* more explicitly in the following way:

(1) We can conceive of zombies. (Premise)
(2) Zombies are physically identical to us, but lack our phenomenal experience. (Premise)
(3) We can conceive of things that are physically identical to us but phenomenally barren. (1, 2)
(4) Conceivability entails possibility. (Premise)
(5) Things that are physically identical to us but phenomenally barren are possible. (3, 4)
(6) One set of properties (b-properties) supervene logically on another set (a-properties) if no two logically possible situations are identical with respect to their a-properties but distinct with respect to their b-properties. (Premise)
(7) Phenomenal facts do not logically supervene on physical facts. (5, 6)
(8) A natural phenomenon is reductively explainable in terms of some low-level properties precisely when it is logically supervenient on those properties. (Premise)
(9) Conscious experience is not reductively explainable in physical terms. (7, 8)

To support his first premise – that zombies are conceivable – Chalmers makes an appeal to our intuitions. It seems intuitively obvious to him that

pect, supported by tradition and nothing else,"[4] suggests Dennett. While a valuable test to include in our arsenal, nothing that Chalmers has written shows any obvious signs of this chauvinism so let us clear him on this charge for now, as well. (We should remain vigilant, however, in case such biases should ever present themselves explicitly.)

A fourth potential test – and perhaps the most important – of our intuitions is one of logical self-consistency. This test is particularly relevant in dealing with the fourth claim of Chalmers' argument (conceivability entails possibility), insofar as the logical self-consistency of his argument rides on accepting this premise. Chalmers suggests that our ability to conceive of some thing or state of affairs entails that whatever we are conceiving is logically possible. Recognising that this move may seem suspect to many, he has since defended it in an unpublished paper (still in its first draft) entitled "Does Conceivability Entail Possibility?"[5] that he has posted on his website. In this paper, he strives to explain in detail the various potential relationships between conceivability and possibility. His paper revolves around three dimensions of conceivability, namely: *prima facie vs.* ideal conceivability, primary *vs.* secondary conceivability, and positive *vs.* negative conceivability. Once he has established these distinctions, he works out their implications regarding the validity of a move from each of the resulting composite notions of conceivability (e.g., primary positive ideal conceivability) to possibility. All that is necessary for the argument that follows is an understanding of the *prima facie* / ideal conceivability distinction. The others do not play a role in this analysis and will thus be set aside.

After explaining these various dimensions of the term "conceivability," Chalmers points out that some kinds of conceivability provide stronger grounds for inferring logical possibility than others. *Prima facie* conceivability, for example, is a much poorer guide to possibility than ideal conceivability. Something that is *prima facie* conceivable could potentially be undermined by further reflection that uncovers a contradiction in or misdescription of the supposedly conceivable state of affairs, while no such concern exists for ideal conceivability.

Near the end of his paper, Chalmers claims that zombies are ideally conceivable. One assumes that this assertion derives from his belief that zombies are "obviously coherent,"[6] since clearly any concept with logical coherence would be ideally conceivable. It does not seem, however, that we can simply grant this to Chalmers. I do not take the conceivability of zombies to be an obvious truth; if it were obviously true, then there would be much less conflict in this area then there actually is. Perhaps there is a

strong *a priori* relationship – available to us once we had an adequate understanding of the terms involved – between the physical world and the phenomenal world, and we have yet to realise it. If that were the case, then zombies would not actually be ideally conceivable at all. They would certainly be *prima facie* conceivable, but Chalmers grants that this would be inadequate to guarantee their logical possibility. He acknowledges the possibility of this response, but suggests that

> in the zombie case, this materialist will concede that we have *secunda facie* positive conceivability, the sort of positive conceivability that is not undermined by a reasonable period of reflection; and we have seen that *secunda facie* conceivability is an extremely good guide to possibility.[7]

Even if we agree with Chalmers here, this is certainly a retreat to a weaker point than he had originally set out prove.

Pressing on, Chalmers argues that the case for the conceivability (and, hence, logical possibility) of zombies is bolstered by considerations regarding other, non-standard realisations of ourselves, such as Block's Chinese Nation example.[8] After all, a functional equivalent is a functional equivalent, regardless of how radical the instantiation is; if we can accept the possibility that a radically instantiated functional equivalent of us could lack phenomenal awareness, then this should provide support to the notion of a zombie. As Block argues, suppose that each person in China were provided with a radio and then instructed to emulate the behaviour of a single neuron, such that the overall system was organised in a causally equivalent way to the human brain. (If a billion people are insufficient, then suppose that China contained a trillion individuals.) We could give the brain-equivalent control over a mechanical body equipped with sensors to give the brain-equivalent the appropriate sensory input. A great many people would find it difficult to accept that a unified consciousness could arise out of such a system. Chalmers, himself, rightly argues that the metaphysical possibility of such a system is irrelevant; all that is important to his case is that it is a coherent claim to say that such a system lacks conscious experience. How, then, shall we determine whether this is actually a coherent claim?

This would seem to be an easy exercise since we are reasonably familiar with groups of individuals and in our experience they never exhibit an emergent "group consciousness". Expanding the group from a dozen – or a hundred, depending on the size of group that first came to mind – to a billion or more seems like a relatively straightforward matter. Our intuitions

indicate that the larger group will be exactly what the smaller group was, only more so. A small, but loud group will get louder when we add to it, but the colour red will not "emerge" as a property of the group once it reaches a suitable critical membership limit. Following from this, since there was no consciousness emergent from the small group, we should expect the same from the large group.

We must be careful, however, where we place the property we are trying to consider. If a group consciousness did result from our Chinese Nation experiment, it is very possible that none of the individual Chinese people involved would realise such a thing was happening. I maintain that one of the reasons our intuitions may be faulty on this matter is because of this misplacement of the property in question. Some might assume that as members of the Chinese nation, that they would have access to this emergent consciousness. There would not necessarily be a "shared" consciousness in an immediate sense that everyone would enjoy. Another example: even if the atoms that comprise a television were individually conscious it does not follow that they would necessarily be aware that they were involved in the shared function of being a TV. In fact, it is probably quite unlikely. Even if we remove the element of consciousness from our examples, our grasp of extremely large organised structures can still be seen to be very limited; I doubt that many of us are capable of explaining the behaviour of a computer based on its atomic components, for example. Thus, it seems as though the Chinese Nation argument seems to presuppose the intuition Chalmers is trying to prove (i.e. that non-standard realisations of ourselves do not have phenomenal consciousness).

Perhaps we can gain some understanding by considering zombies as a conjunction of two ideas. To this effect, zombies have been compared to the concept of a mile-high unicycle[9] or to unicorns.[10] The concept of a mile-high unicycle certainly seems coherent; after all, there is nothing in the concepts of either a mile-high object or a unicycle that would lead us to contradiction. The same applies to unicorns, except in this case the conjunction is between a white horse and a single horn. Performing a conjunction on two notions seems to be a relatively straightforward task. Can we think productively about zombies as a conjunction of two ideas, as we do with unicorns or tall unicycles?

The difficulty here lies in the fact that neither the notion of a complete physical replica of ourselves nor the notion of a total lack of phenomenal consciousness is a simple notion. They are certainly not nearly as simple as our notions of unicycles and being a mile-high object, or our notions of horses and horns. We can place significant stock in our intuitions of these

latter things because of their relatively simple natures. Our notions of both consciousness and our physical makeup, however, are much more complicated, and thus, much more prone to mistakes of contradiction that we may not discover even after a reasonable amount of consideration. If we have an incomplete notion of either part of our conjunction, we are unable to claim ideal conceivability. Has Chalmers worked out everything that there is to know about the phenomenal realm or at least the aspects relevant for an accurate assessment of a possible conjunction? Does he know the comparable aspects in the physical realm? It seems doubtful that he has adequate knowledge to bless the conjunction unconditionally, which is what his claim of ideal conceivability would imply. *Prima facie* conceivability does not take him far enough to justify his conceivability to possibility entailment.

On what grounds can someone who accepts the conceivability of zombies claim that he or she has better than a *prima facie* coherent concept of zombies? What assures them that they have sufficient understanding of the relevant concepts to make such a claim? I submit that despite the best of intentions, we still have much work to do. Güven Güzeldere sums it up nicely in his introduction to the anthology *The Nature of Consciousness*: "If anything, the survey of the contemporary issues and current debates surrounding consciousness points to a need for a careful reexamination of our pretheoretical intuitions and conceptual foundations on which to build better accounts of consciousness."[11] Until clarity prevails over the conceptual disarray surrounding the notion of phenomenal consciousness, we cannot accept without question claims for the ideal conceivability of zombies or, by association, their logical possibility.

Notes

1 D. Chalmers, *The Conscious Mind* (Oxford: Oxford University Press, 1996) 96 [hereinafter *Mind*].
2 D. Dennett, "The Unimagined Preposterousness of Zombies" in *Brainchildren* (Cambridge, Mass.: Bradford Books, 1995).
3 Chalmers, *Mind*, *supra* note 1 at 96.
4 D. Dennett, "The Zombic Hunch: Extinction of an Intuition?" (Given as a Millennial Lecture for the Royal Institute of Philosophy on November 29, 1999. Available at http://www.nyu.edu/gsas/dept/philo/courses/consciousness/papers/DD-zombie.html, cited: 1999).
5 Chalmers, "Does Conceivability Entail Possibility?" (Unpublished first draft, available at http://www.u.arizona.edu/~chalmers/papers/conceivability.html, cited: 1999) [hereinafter "Conceivability"].

6 Chalmers, *Mind*, *supra* note 1 at 96.
7 Chalmers, "Conceivability," *supra* note 5.
8 N. Block, "Troubles with Functionalism" in N. Block, ed., *Readings in Philosophy of Psychology* 1 (Cambridge, Mass.: Harvard University Press, 1980).
9 A. Cottrell, "Sniffing the Camembert: On the Conceivability of Zombies" (1999) 6 (1) Journal of Consciousness Studies 4-12.
10 Chalmers, *Mind*, *supra* note 1 at 96.
11 G. Güzeldere, "The Many Faces of Consciousness: A Field Guide" in N. Block, O. Flanagan and G. Güzeldere eds., *The Nature of Consciousness* (Cambridge, Mass.: Bradford Books, 1997) 45.

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Locke's Principle of Self-Consciousness and the Attempt to Provide an Empirical Account of Psychological Processes

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Abstract: One consequence of Locke's empiricism is that he rejects Descartes' claim that the essence of the mind consists in self-conscious thought. Locke is, however, nevertheless willing to accept a corollary, which follows from this definition of mind, *viz.* that there is nothing in the mind of which the mind is not conscious. In this paper, the author argues that Locke accepts this corollary because he requires it to eliminate the innatist position that he attacks in the first book of *An Essay Concerning Human Understanding*. The author also argues that by incorporating what is surely an *a priori* assumption into his empirical framework, Locke is inevitably hindered in his attempt to provide an empirical account of psychological processes. The conclusion of this paper is that Locke's acceptance of the corollary in fact renders an empirical psychology impossible because he cannot make his descriptions and explanations of psychology processes, i.e., those that are supported by experiential evidence, consistent with it.

In his 'introduction' to *An Essay Concerning Human Understanding*, Locke asserts that an examination of the essence of the mind lies beyond the scope of his treatise:

> This, therefore, being my purpose to enquire into the original, certainty, and extent of humane knowledge; together, with the grounds and degrees of belief, opinion, and assent; I shall not at present meddle with the physical consideration of the mind; or to trouble myself to examine, wherein its essence consists…[1]

Thus, one will not find in the *Essay* an explicit doctrine concerning the essential nature of mind; for, according to Locke, all that may possibly be known about substances in general, and mental substance in particular, is

that which is presented to us in experience. To acquire knowledge *a priori* is impossible; all knowledge is acquired *a posteriori* from experience alone. Locke therefore rejects the Cartesian conception of the essence of the mind as consisting in self-conscious thought on purely empirical grounds: there is no experiential evidence to warrant the claim that the act of thinking is essential to, and inseparable from, the mind.[2]

The denial of *a priori* knowledge, and thus the rejection of Descartes' conception of mental substance should lead Locke to attribute to the mind only those properties that are responsible for the operations that we experience in the mind. Yet, although Locke claims that lack of experiential evidence constitutes an adequate refutation of one corollary of Descartes' definition of mind, *viz.* that the mind always thinks, he nevertheless accepts another corollary, *viz.* that there is nothing in the mind of which the mind is not conscious. And Locke undoubtedly does accept this principle of self-consciousness (which I shall henceforth refer to as D.T.M.: the Doctrine of the Transparency of the Mind); this is evident from the following passages:

> It seems to me a near contradiction, to say, that there are truths imprinted on the soul, which it perceives not; imprinting, if it signify any thing, being nothing else, but the making certain truths to be perceived. For to imprint any thing on the mind without the mind's perceiving it, seems to be hardly intelligible.[3]

> For if these words (*to be in the understanding*) have any propriety, they signify to be understood. So that, to be in the understanding, and not to be understood; to be in the mind, and, never to be perceived, is all one, as to say, any thing is, and is not, in the mind or understanding.[4]

Both of these passages are taken from within the context of Locke's polemic against innate principles in the first book of the *Essay*.

In the first section of this paper, I shall explain how Locke construes the relation between the D.T.M. and the issue of innateness, in order to make clear Locke's reason for employing such a doctrine. In the second section, I shall argue that the retention of the D.T.M. within Locke's empirical framework is the primary cause of the difficulties Locke encounters in attempting to provide an empirical account of psychological processes. The upshot of all this, as we shall see, is that, although Locke requires the D.T.M. to get his empiricist programme off the ground, as it were, by using it to deny innateness, the same doctrine in fact renders an empirical psychology impossible; for the D.T.M. is incompatible with, and indeed refuted by, the psychological process that Locke wishes to account for with natural laws.

I.

In the first book of the *Essay*, Locke formulates a series of attacks upon the innatist perspective in order to clear the way for his own empirical perspective. It is not clear against whom these attacks are meant, for Locke never specifies who actually holds the positions he discusses. Nevertheless, he formulates the innatist thesis in the following manner:

> There is nothing more commonly taken for granted, than that there are certain principles both speculative and practical (for they speak of both) universally agreed upon by all mankind: which therefore they argue, must needs be the constant impressions, which the souls of men receive in their first beings, and which they bring into the world with them, as necessarily and really as they do any of their inherent faculties.[5]

According to Locke, then, universal consent to a certain principle is a necessary condition for that principle to be innate; but universal consent is not a sufficient condition: for even if there were universal consent to a principle, this would prove nothing as to the origin of the principle if it could be shown that universal consent may in fact arise in some other way.[6] Locke therefore includes into the innatist argument the qualification that any innate principles must be 'constant impressions' on the soul from the time of birth. By 'constant impressions', Locke means that the principles in question must be explicitly present within the consciousness of the mind upon which they are impressed. Furthermore, these principles must be reflectively available to the mind from the earliest period of consciousness; otherwise, we could not be sure that such principles were in fact in the mind since birth, and that they are thus innate. Having been construed in this way, the Argument from Universal Consent is admittedly false. Locke easily finds suitable counter-examples in children, idiots, and savages, who have no apprehension whatsoever of the supposedly innate principles.

Thus, according to Locke, the most intelligible defence of innateness requires (1) that there be universal consent to all innate principles, and (2) that these principles be accompanied by the mind's consciousness of them from the time of birth. But this formulation of the thesis is problematic, for

it seems very unlikely that any advocate of innateness would be committed to such an extreme criterion of what it means to be innate: it is obviously not the case that all people are conscious of, and give their assent to, such principles at birth. Theories of innateness are generally committed to a much weaker claim: that innate ideas or principles are present latently, or as dispositions or capacities.[7] But Locke explicitly refuses to consider the possibility of attaching to the innatist thesis any meaning that does not include his identification of being in the mind with being an object of self-conscious thought. Again, Locke states that "to say a notion is imprinted in the mind, and yet at the same time to say, that the mind is ignorant of it, and never yet took notice of it, is to make this impression nothing."[8] It is important for Locke to maintain that unconscious knowledge is impossible, for otherwise he would be unable to attack his contrived definition of innateness. If it were possible for there to be in the mind innate truths of which the mind is ignorant, then one could easily reply to Locke that lack of universal consent indicates not that there are no innate truths, but only that such truths exist in the minds of some people in latent form.

Although Locke does consider other arguments that he claims advocates of innateness might employ, he is nevertheless unwilling to depart from the D.T.M. Indeed, he believes that the only innatist arguments that are even intelligible are those which include the D.T.M. as a premise. Thus, according to Locke, the claim that the mind possesses latent or 'implicit' knowledge of any principles can only mean that "the mind is capable of understanding and assenting firmly to such propositions,"[9] when the mind first becomes acquainted with them. This, Locke states, is the only plausible interpretation of the claim that there are innate principles in the mind in latent form: any other interpretation would be contrary to the D.T.M. To say that there are principles in the mind before they are known can mean nothing more (*via* the D.T.M.) than that the mind possesses an innate capacity for knowledge. But if this is the argument, then Locke will gladly accept it; for, according to Locke, the acceptance of innate cognitive capacities or dispositions in no way commits him to innate principles; the capacities may be innate, but for Locke nothing emerges from those capacities until they are applied to sensory experience. While mental capacities are innate, all mental content is acquired. Moreover, Locke holds that the existence of these mental capacities is compatible with the D.T.M.; for mental capacities are not faculties distinct from the mind, but rather are powers of the mind that lay dormant when they are not processing the materials of sense experience.[10]

II.

Locke requires the D.T.M. so that he may eliminate the possibility of there being innate mental content and thereby provide an empirical psychology; but, in order for this attack on innateness to be successful, Locke must ensure that his descriptions and explanations of psychological processes are consistent with the D.T.M.. For should his account of the mind's operations allow for any mental content to exist unperceived, he would thereby be left with the problem of innateness once again. In this section of the paper, I shall argue not only that Locke is unable to make his explanations of psychological processes consistent with the D.T.M., but also that the D.T.M. is in fact the primary cause of the difficulties Locke encounters in attempting to provide an empirical psychology.

Locke's views on the operations of the mind occupy most of the second book of the *Essay*. He begins by asserting that the mind is a *tabula rasa* at birth, completely devoid of mental content, and that it only begins to acquire ideas when it has its first sensation. According to Locke, it is the conscious experience of these ideas, and the mental operations by which they are processed, that constitute the object of empirical psychology.[11] At times, Locke appears to abandon the D.T.M. in favour of describing this conscious mental experience without realising the inconsistency between the two. For example, while discussing the degrees of attention, he states that ideas sometimes "pass almost quite unregarded, as faint shadows that make no impression."[12] Then again, while speaking of the faculty of perception: "the ideas we receive by sensation are often in grown people altered by the judgement without our taking notice of it."[13] Finally, he admits that it may not be "so easy, nor perhaps possible for us to distinguish betwixt two approaching ideas, which yet are really different."[14] Each of these cases is inconsistent with the D.T.M., which states that the mind is conscious of all mental content, and that all mental content can only be exactly as perceived. Yet, in each of these passages we find Locke telling us that if we only look to our conscious experience of the mind's operations, we shall recognise that some mental content is in fact sometimes not perceived.

Since Locke did not appear to recognise the inconsistencies concerning the cases cited above, it does not seem prudent to pursue them in any detail. But of the mental phenomena he addressed in the *Essay*, Locke certainly did recognise the problem with his account of memory. Indeed, the alteration of this account in later editions of the *Essay* was inspired by the motive to reconcile memory with the D.T.M.[15] At first, he had con-

strued memory as a 'store-house' of the mind's ideas. But this is obviously inconsistent with Locke's identification of being in the mind with being an object of self-conscious thought; for, on this account, there are ideas 'in the mind' of which the mind is sometimes not aware. And if ideas acquired from sense experience can be stored unconsciously in the mind, why couldn't there also be in the mind a 'store-house' of innate ideas? Locke therefore revises his definition of memory:

> But our ideas being nothing, but actual perceptions in the mind, which cease to be anything, when there is no perception of them, this laying up of our ideas in the repository of the memory, signifies no more than this, that the mind has a power, in many cases, to revive perceptions, which it once had, with this additional perception annexed to them, that it has had them before.[16]

Hence memory is no longer a 'store-house' of ideas that exists 'in the mind', but rather is a power of the mind to somehow revive or reconstitute ideas which actually go out of existence when they are not perceived by the mind. A memory may only be said to be 'in the mind' when the mind is conscious of it; otherwise, there is only the power of the mind to revive and perceive it again. As Atherton recognises,

> Since Locke is opposed to the suggestion that there could be anything ideational or prepositional in the mind unless it is being consciously thought, memories are mental only in the sense that they can be linked with episodes of conscious thought.[17]

Thus, that which is unconscious is only a mental power or faculty (which is not distinct from the mind), and, according to Locke, this is consistent with the D.T.M.

There are very few people who would deny the existence of innate mental powers or faculties; but, there are also very few people who would accept the D.T.M.. Locke is attempting to incorporate both of these into his empiricist perspective. But, I think that he is unsuccessful insofar as he states that there are powers of the mind (e.g. memory) which remain latent except when they are processing ideas. Now, as we are never actually able to perceive these powers, our ideas of them can only be formed by making an inference from our experience of their activities or operations within the mind. In this way, the mind,

> consequent upon its acts of noticing its various operations, acquires ideas of the various ways that it operates, as well as ideas of the powers by which it operates ... for instance, [it] acquires both the idea of thinking, and the idea of the power to think.[18]

Thus, since we can only know something about mental powers through their effects, it is impossible to know anything about them when they are in latent form, i.e. when they are unactualized, and thus not producing any effects. But if these powers exist in the mind in such a way that renders them unperceived by the mind, then is not Locke's acceptance of them contrary to the D.T.M.? Locke would probably object to this assertion on the grounds that it misrepresents what these mental powers are really like; for he holds that these powers or faculties are not distinct from the mind in the way that ideas are, and thus are not really 'in the mind'. According to Locke, it should not be supposed that they "stand for some real beings in the soul ... [for] it is not one power that operates on another; but it is the mind that operates, and exerts these powers."[19] Thus, for Locke, it would not be inconsistent to say that the mind perceives everything 'in the mind,' while also holding that the mind sometimes is unable to perceive anything about its own powers. But this claim is not quite right; for Locke's acceptance of these powers allows for the possibility of unperceived and unconscious mental content in at least two ways. In the first place, since Locke asserts that the essence of neither mental nor material substance can be known, he is left with the conclusion that we cannot know any more about the one than about the other.[20] Thus, just as material bodies are capable of having unknown causal properties, it may also be the same in the case of mind. The fact that we know so little about these substances means that we cannot be sure that either of them lack certain properties merely on the grounds that we do not experience anything that would indicate that they do in fact possess these properties. So, just as we sometimes find that corporeal bodies, which we have hitherto experienced to behave in a certain manner, display properties which have hitherto been unknown under different circumstances, Locke cannot rule out that the same sort of thing might also happen with the mind: perhaps it is necessary for there to be certain circumstances before the mind's latent ideas can become actualized, just as the powers of the mind require ideas to become actualized. In the second place, if Locke is willing to embrace the notion of potentiality in the exercise of the mind's faculties, where these faculties remain in latent form until they began to operate,

then again why might it not also be the case with innate ideas? It could be that these ideas, when in latent form, are no more distinct from mental substance than are the faculties to which Locke refers. Even if it were true that nothing could be concealed unconsciously 'in the mind,' there would always be the possibility that ideas could be concealed as modifications of the mental substance itself. Thus, Locke's revised definition of memory as a power of the mind, although perhaps not inconsistent with the D.T.M. *per se*, nevertheless allows for the possibility of there being ideas imprinted on the mind without the mind's perceiving them.

The reason why Locke construes memory as a power of the mind in the first place is that he wishes to make his explanations of psychological processes consistent with the D.T.M.. But, even if these explanations were consistent, many of them are flawed by serious theoretical problems as a result of Locke's insistence on retaining the D.T.M. Memory is case in point. His theory that the mind has a power to reconstitute ideas avoids the problem of defining memory as a 'store-house,' but it makes memory very mysterious as a psychological phenomenon. At least, with the 'store-house' model, one would be able to provide a plausible explanation as to how memories are brought forth into consciousness from being stored (e.g. the retrieval of ideas based on associations between that which is retrieved, and that which is presently an object of consciousness). Instead, Locke builds into the mind the power to reconstitute ideas of which the mind is not presently conscious. But, in what does this 'reconstitution' consist? How does the mind know what it must reconstitute at any given time? And, furthermore, what would be the ontological status of ideas which 'cease to be anything when there is no perception of them,' and are actually brought back into existence by a power of the mind. These are questions that Locke fails to address.

There is another problem that arises from Locke's attempt to reconcile his account of memory with the D.T.M. He states that "memory is a power of the mind to revive perceptions which it once had, with the additional perception annexed to them, that it has had them before."[21] We have just seen that what Locke means by 'reviving' perceptions is very unclear. But what about this 'additional perception' that is 'annexed' to the perceptions or ideas (for he identifies the two) that have been reconstituted. By this, Locke appears to mean that the annexed perception is that which indicates that an idea is a copy of an earlier idea; for the idea that has been reconstituted cannot be precisely the same one as before because the previous idea ceased to exist once it was no longer perceived. So the mind is not recreating *per se*, but rather it is creating new ideas similar to the previous ones.

The annexed perception is required to inform the mind that the reconstituted idea is in fact a copy (i.e. a memory); without this annexation there would be no way for the mind to distinguish between current perceptions and memories. For there is nothing about the reconstituted ideas in themselves by which the mind might distinguish them, because they have just now been created. Once the reconstituted idea enters consciousness, it becomes an actual perception like any other. According to Locke, that which is annexed to the reconstituted idea is the perception that the mind has had the idea before. Presumably, since the mind is unable to distinguish between those actual perceptions that are memories, and those that are not, it must be that the mind somehow adds a sign of 'beforeness' to each idea as soon as it is reconstituted. But how are we to account for this idea of 'beforeness'? Locke answers that this idea (which is required to distinguish perceptions from memories) is derived from reflection on the train of ideas in our minds.[22] But this is not satisfactory: in order to acquire the idea of 'beforeness,' one must be able to perceive that each of the ideas in the train has temporal priority over the previous one, and infer therefore that each one is located in a temporal continuum. But this is exactly what Locke must account for. If the ideas in the train themselves do not have annexed to them an idea of 'beforeness,' it will be impossible for one to acquire the idea of 'beforeness' just by reflecting on this train. Locke argues by presupposing the idea of 'beforeness,' and thus is unable to explain how the mind distinguishes between perceptions and memories.

Conclusion

Locke employs the D.T.M., in the first instance, to deny the possibility of innate truths, and thus to get his empiricist programme off the ground. But the D.T.M. brings unfortunate consequences for Locke's attempt to provide an empirical account of psychological processes. For the object of empirical psychology is just those psychological processes that present themselves as the conscious manifestation of the mind's unconscious operations. Locke endeavours to provide an empirical account of these operations, but, since he also retains the D.T.M., the account he actually gives is either at times inconsistent with the D.T.M., and thus allows for the possibility of innateness, or is consistent with the D.T.M., but becomes highly implausible as an account of what experience truly presents to us. In the latter case, Locke attempts to stay true to the D.T.M. by building more powers into the innate faculties that he claims the mind possesses at the time of birth. The genesis of Locke's difficulties in providing an em-

pirical account of psychological processes is therefore caused primarily by his retention of the D.T.M., and only indirectly by his reliance on innate faculties, within his empiricist program. Indeed, the reason why the D.T.M. is so problematic for Locke is that there is in fact no empirical evidence to support it; for the D.T.M. was established *a priori*, as a corollary of the Cartesian definition of mind as a thinking substance. Thus, the only evidence that Locke provides for the D.T.M. is that it would be a 'near contradiction' to deny the doctrine. As fundamentally opposed to the principles of empiricism, the D.T.M., together with any other *a priori* assumptions, should have been rejected by Locke at the beginning.

Notes

1 J. Locke, *An Essay Concerning Human Understanding* P.H. Nidditch, ed., (Oxford: Clarendon Press, 1979) 1.1.2 [hereinafter *Essay*]
2 *Ibid.* at 2.1.10
3 *Ibid.* at 1.2.5
4 *Ibid.* at 1.2.5
5 *Ibid.* at 1.2.2
6 *Ibid.* at 1.2.3
7 M. Atherton, "Locke and the issue of Innateness" in V. Chappel, ed., *Locke* (Oxford: Oxford University Press, 1998) 50.
8 *Supra* note 1 at 1.2.5
9 *Ibid.* at 1.2.22
10 *Ibid.* at 2.21.17
11 *Ibid.* at 1.1.2
12 *Ibid.* at 1.19.3
13 *Ibid.* at 2.9.9
14 *Ibid.* at 2.16.3
15 J. Gibson, *Locke's Theory of Knowledge* (Cambridge: Cambridge University Press, 1960) 23.
16 *Supra* note 1 at 2.10.2
17 *Supra* note 7 at 53
18 J. Kraus, *Locke: Empiricist, Atomist, Conceptualist, Agnostic* (New York: Philosophical Library, 1968) 61-2.
19 *Supra* note 1 at 2.21.6
20 *Ibid.* at 2.23.5
21 *Ibid.* at 2.10.2
22 *Ibid.* at 2.14.3

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A Limited Plurality

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Abstract: John Rawls attempts to construct a social theory in his work *Political Liberalism* that combines the stability and equality of democracy with a plurality of opinions and values within society. This paper argues that Rawls' theory exaggerates the amount of plurality possible in society. First, the author outlines Rawls' theory, and then proceeds to show that Rawls fails to realize the limiting nature of his demand for "overlapping consensus." Furthermore, the author argues that Rawls' theory lacks an adequate explanation of the origin of citizens' motivation to follow the dictates of political culture and institutions. Finally, the author suggests that Rawls falls prey to the "myth of liberal neutrality," arguing that liberalism is a value-laden philosophy that cannot accommodate the wide range of values Rawls would have us believe it can.

In *Political Liberalism*,[1] John Rawls takes up the ambitious project of theorizing justice within a plural society. He seeks to establish a less demanding theory than he initially proposed in *A Theory of Justice*,[2] in the hopes of accommodating a greater diversity of comprehensive doctrines. His two principles of justice remain,[3] but their scope has changed. By limiting justice to the public realm, Rawls hopes to allow for extensive plurality without sacrificing social justice, stability and order. In this paper I will briefly outline Rawls' ideas on procuring justice and stability within a plural society. I will then argue that Rawls' theory does not accommodate nearly the level of plurality that he claims it does. This is due to three aspects of his argument: 1) his requirement of an overlapping consensus of "comprehensive doctrines,"[4] which greatly reduces the number of comprehensive doctrines permissible in the society he envisions, 2) his insufficient account of individuals' motivation for adhering to the political

conception of justice, and 3) his mistaken notion of the neutrality of liberalism and of the relative exclusiveness of the political and nonpolitical realms, which cause him to neglect to account for the assimilation of comprehensive doctrines into the public culture. Although, in *Political Liberalism*, Rawls may have found the optimal balance between stability and plurality, he overstates the level of plurality that is allowed for by the theory.

Rawls begins by providing a picture of the type of society upon which he is focusing: a constitutional democracy made up of free and equal citizens who support a wide variety of religious, philosophical and moral doctrines. Persons are free "in virtue of their two moral powers (a capacity for a sense of justice and for a conception of the good) and the powers of reason (of judgment, thought, and inference connected with these powers)."[5] Persons are equal in virtue of "their having these powers to the requisite minimum degree to be fully cooperating members of society."[6] The challenge facing Rawls is to find a way to maintain a just and stable democratic society in light of the deep divisions inherent in a pluralistic society, consisting of free and equal citizens.

In order to understand Rawls' theory of how we might arrive at the society described above, we first must fully understand his theoretical assumptions about the people living in the society. In addition to being free and equal, Rawls makes the significant assumption that persons in society should be both reasonable and rational. There are two aspects of being reasonable. Persons are reasonable if, when among equals, "they are ready to propose principles and standards as fair terms of cooperation and to abide by them willingly, given the assurance that others will likewise do so."[7] Furthermore, they must recognise and be willing to accept the consequences of the burdens of judgment.[8] Rawls wants to ensure that the society is a system of fair cooperation, and the concept of being reasonable is an essential part of achieving such a system. Persons are also rational, meaning that they adopt the most effective means to ends, and are able to "balance final ends by their significance for their plan of life as a whole, and by how well these ends cohere with and complement one another."[9] According to Rawls, each reasonable and rational person will have a "comprehensive doctrine,"[10] which is essentially a conception "of what is of value in human life, as well as ideals of personal virtue and character."[11] This "scheme of thought"[12] covers the ideas of the good and the values and virtues recognised by the individual, and therefore, informs much of a person's conduct. Many religious and philosophical conceptions, for example, are comprehensive doctrines. In a

plural society, Rawls assumes that people hold a diversity of "conflicting and irreconcilable"[13] comprehensive doctrines. Given this understanding of the people involved in Rawls' theory, we may now look at how Rawls proposes to construct the society outlined above.

The first stage of Rawls' theory is characterized by the establishment of a freestanding political conception of justice. The idea here is to establish a conception of political justice, formulated independently of the conflicting comprehensive doctrines held by the citizens, which will apply to the political domain of society. According to Rawls, because the political conception of justice is freestanding, it is political, and not metaphysical, in nature. As such, "it is neither presented as, nor as derived from, [a comprehensive] doctrine applied to the basic structure of society, as if this structure were simply another subject to which that doctrine applied."[14] Rather, Rawls' approach to establishing a freestanding political conception of justice is to put people behind the "veil of ignorance,"[15] and to have them, in that "original position,"[16] agree about the principles of justice upon which the political conception will be based. The concept of the original position is explained in great detail in Rawls' *A Theory of Justice*, and will only be outlined briefly here. Rawls believes that people in the original position would arrive at his two "justice as fairness" principles, which would then form the basis of the political conception of justice. The political conception of justice would not apply to every aspect of society, but would apply only to the "basic structure" of society, which Rawls describes as follows:

> By the basic structure I mean a society's main political, social, and economic institutions, and how they fit together into one unified system of social cooperation from one generation to the next. The initial focus, then, of a political conception of justice is the framework of basic institutions and the principles, standards, and precepts that apply to it, as well as how those norms are to be expressed in the character and attitudes of the members of society who realize its ideals.[17]

Through the process described above, Rawls suggests that a freestanding political conception of justice will be agreed upon to govern over the basic structure of society. My interest here is not in questioning the validity of this process. Rather, if we accept Rawls' process, we must then ask what the relationship is between the freestanding political conception of justice and individual citizens' comprehensive doctrines. This relationship is the focus of the second stage of Rawls' theory.

In the second stage of Rawls' theory, he carefully unpacks the relationship between the political conception of justice formulated above and the various comprehensive doctrines in society by introducing the notion of an "overlapping consensus." Rawls' goal is to arrive at a political conception of justice that, although freestanding, can be justified by a number of comprehensive doctrines, and therefore, will be willingly accepted by the citizens, *each for his own reason*:

> In [an overlapping] consensus, the reasonable doctrines endorse the political conception, each from its own point of view. Social unity is based on a consensus on the political conception; and stability is possible when the doctrines making up the consensus are affirmed by society's politically active citizens and the requirements of justice are not too much in conflict with citizens' essential interests as formed and encouraged by their social arrangements.[18]

Notice that in this second stage, Rawls' focus is on the unity and stability of the plural society. Rawls wants to achieve stability by securing societal agreement on the political conception of justice and the institutions that arise from it. Indeed the overlapping consensus is the source of stability because the various comprehensive doctrines are all able to endorse the political conception of justice, each from its own standpoint. With the establishment of an overlapping consensus, the political conception of justice and the institutions that it gives rise to will be "seen as a fund of implicitly shared ideas and principles."[19] This "fund," according to Rawls, will take the form of a public political culture. This "political" culture should be distinguished from the "background" culture of civil society, the latter of which is "the culture of the social, not of the political" and is made up of the many different comprehensive doctrines that exist in the society.[20] The stability of the plural society, then, is secured by the existence of a public culture that is shared, in the political realm, by the diverse members of society.

At this point, Rawls must address why it is that a plurality of comprehensive doctrines will overlap in agreement upon a single conception of political justice. Rawls' answer to this question seems to rely on an important limitation that he imposes upon the plurality of comprehensive doctrines in society. The pluralism that Rawls accounts for is not pluralism "as such," but is rather what he calls "reasonable" pluralism.[21] Reasonable pluralism, as opposed to simple pluralism, is "the work of free practical reason within the framework of free institutions."[22] According to Rawls,

> Under the political and social conditions secured by the basic rights and

> liberties of free institutions, a diversity of conflicting and irreconcilable – and what's more, reasonable – comprehensive doctrines will come about and persist if such diversity does not already obtain.[23]

The implication of Rawls' restriction on pluralism is that reasonable and rational citizens may hold comprehensive doctrines that are conflicting and irreconcilable, but these doctrines must all be reasonable.

What does it mean for a comprehensive doctrine to be reasonable? Certainly the answer to this question is connected to the definition of a reasonable person offered earlier, but Rawls proceeds to give a further explanation. He outlines three main features of a reasonable comprehensive doctrine. First, it "is an exercise of theoretical reason: it covers the major religious, philosophical, and moral aspects of human life in a more or less consistent and coherent manner."[24] Second, a reasonable comprehensive doctrine is an exercise of practical reason "in singling out which values to count as especially significant and how to balance them when they conflict."[25] Third, in order to be deemed reasonable, a comprehensive doctrine normally belongs to, or draws upon, "a tradition of thought and doctrine ... [I]t tends to evolve slowly in the light of what, from its point of view, it sees as good and sufficient reasons."[26] Furthermore, Rawls explains that, while it is reasonable to affirm a reasonable comprehensive doctrine, it is unreasonable to use political power to repress reasonable doctrines. Rawls believes that this "deliberately loose" account of reasonable comprehensive doctrines accommodates an extensive plurality of doctrines, without being "arbitrary and exclusive."[27] Although I am unable here to give a complete account of Rawls' argument on the subject, it is sufficient to say that he believes that reasonable comprehensive doctrines each support the freestanding political conception of justice because this political conception simply is continuous with the ideals of such doctrines.[28]

This account of the establishment of an overlapping consensus will not be contested here. Rather, at this point it is necessary both to scrutinize further the concept of reasonable pluralism, and to evaluate it with respect to Rawls' goal of procuring justice and stability within a plural society. Such an evaluation gives rise to my first point of contention with Rawls' theory, which is that his demand for an overlapping consensus – the very demand that causes the need for pluralism to be "reasonable" – severely limits the level of plurality that can be accommodated by his theory.

It is significant that, in anticipation of the need for an overlapping

consensus, Rawls limits his pluralism to what he calls a "reasonable" pluralism. Without this limitation, the idea of an overlapping consensus is unimaginable. In order to produce a consensus of any kind among various comprehensive doctrines, this limitation must be quite substantial in its restriction of the permissible comprehensive doctrines. Rawls claims to the contrary, arguing that this limitation is "deliberately loose," and still allows for extensive plurality in the society. But is this really the case? It is my contention that Rawls' limitations on plurality are substantial, and significantly reduce the number of comprehensive doctrines that can be accommodated in political liberalism.

In order to examine the validity of this claim, it is helpful to look further at what Rawls, himself, says about the limitations of reasonable pluralism. Rawls states that reasonable comprehensive doctrines:

> Are not simply the upshot of self- and class interests, or of peoples' understandable tendency to view the political world from a limited standpoint...the fact of reasonable pluralism is not an unfortunate condition of human life. In framing the political conception so that it can, at the second stage, gain the support of reasonable comprehensive doctrines, we are not so much adjusting that conception to brute forces of the world but to the inevitable outcome of free human reason.[29]

Rawls' reasonable pluralism consists in the diversity of comprehensive doctrines that will come about "under the political and social conditions secured by the basic rights and liberties of free institutions."[30] There appear to be two problems with this. First, his claim that reasonable comprehensive doctrines will only come about through free institutions seems to run counter to many comprehensive doctrines within society which we would want to consider reasonable and which we would want to accommodate within a theory of the plural society, but which arose *because* institutions were not free. A great number of reasonable comprehensive doctrines today are far from being the product of free institutions in which basic rights and liberties were secured. In fact, many reasonable comprehensive doctrines with which we are currently familiar arose from restricted, discriminatory institutions in which basic rights and liberties for all were not respected. Feminism and Marxism are two examples of such doctrines. Both of these doctrines exist because of inequality and discrimination; they are, indeed, the product of the "brute forces of the world" and are "the upshot of self- and class interests." The essential point here is this: Rawls overstates the diversity of comprehensive doctrines

that would arise in a society in which the institutions are free and the basic rights and liberties of individuals are secured. Many moral, philosophical, and religious doctrines are not the product of free practical reason, as Rawls would have us believe, but rather they are actually the product of oppression and injustice. In other words, these doctrines arise because institutions are *not* free, and because rights and liberties are *not* secured for all. Thus, it would appear as though Rawls' theory, in demanding that comprehensive doctrines be reasonable, excludes many of the doctrines we would want to be accommodated within the theory.

The second problem with Rawls' definition of reasonable comprehensive doctrines is that it automatically excludes those comprehensive doctrines that pose the greatest challenge to stability in a plural society. People with racist and sexist doctrines are the products of discriminatory institutions. Religious fundamentalism is certainly not a product of free institutions. In setting the limits he does, Rawls not only eliminates a significant portion of comprehensive doctrines, but he also eliminates precisely those doctrines that would prove to be most troublesome for his theory – that is, those doctrines for which an overlapping consensus would be highly unlikely. For example, as mentioned above, religious fundamentalism is viewed as unreasonable by this theory. Anyone, then, who believes that political institutions must recognise God's laws in order for the public to achieve salvation is unreasonable. Only a liberal doctrine from a follower of this religion would be permitted. In the realm of all conceivable comprehensive doctrines, however, this restriction to liberalism is actually very limiting. To require that a doctrine change in order to be liberal is often enough to undermine the whole doctrine:

> By insisting that the cultural community place a high value on individual choice, the larger society would in effect be saying that the minority culture must become much more liberal ... they would surely object that to elevate individual choice and suggest the course of 'liberalizing' their cultures 'without destroying them' is to fail to take their culture seriously. If their culture is not already liberal, if it does not prize individuality or individual choice, then to talk of liberalization is inescapably to talk of undermining their culture.[31]

Rawls' limitation on what counts as a reasonable comprehensive doctrine only allows for doctrines that recognise and support liberal freedoms; thus, he is left to manage a plurality of, what one might call, "nice" theories. With this in mind, Rawls' claim that his theory allows for the stable coexistence of "conflicting and irreconcilable"[32] doctrines loses much

of its force. To say that a number of inherently liberal comprehensive doctrines are "irreconcilable" is, at the very least, an overstatement, considering that the argument could be made that in order for a doctrine to be "liberal" it must involve some level of "reconcilability." Rawls certainly seems to make much easier work for himself. He does this to facilitate an anticipated agreement upon an overlapping consensus, but in the process, he significantly limits the level of plurality allowed for by his theory. In general, Rawls misleadingly fails to recognise that his requirement that comprehensive doctrines be "reasonable" – a requirement that he imposes in the name of stability – comes at a considerable expense to plurality.

My second major concern with Rawls' theory lies in his problematic claim that each person will be motivated to adhere to the political conception of justice for her own reason, according to her own comprehensive doctrine. In *A Theory of Justice*, Rawls provides a detailed account of the moral development of a citizen that he claims is necessary in order to provide her with the motivation required to follow the principles of justice. In *Political Liberalism*, Rawls is quiet on this topic, presumably because, in the hopes of accommodating plurality, he wants to say that each person determines how and why the political conception of justice is acceptable from the standpoint of her own comprehensive doctrine. However, since one of Rawls' main goals is to procure stability, my intention is to show that this response by Rawls is insufficient because it is far too vague to guarantee the stability that he seeks.

Recall that, according to Rawls, the principles of justice apply to the basic structure of society. In *A Theory of Justice*, Rawls includes the family as part of the basic structure of society, and therefore, as being governed by these principles. In that book, by subjecting the institution of the family to the principles of justice, everyone is to receive a proper moral development that is to provide them with the motivation to adhere to the principles of justice. Rawls, however, is silent about the family in *Political Liberalism*, although he still claims that the basic structure of society is subject to the political conception of justice, including the main political, social, and economic institutions.[33] Furthermore, at one point in *Political Liberalism*, when describing the difference between a political conception of justice and comprehensive doctrines, Rawls says that the distinction between these two "is a matter of scope" in that "[a doctrine] is comprehensive when it includes conceptions of what is of value in human life, and ideals of personal character, as well as ideals of friendship and of familial and associational relationships."[34] Given this distinction between the political and the comprehensive, are we to assume that the family is no longer

subject to the principles of justice because it is beyond the scope of the political? Is the family no longer considered one of the basic social institutions of society? Rawls needs to be clear about this question, because the answer will have far-reaching implications for the level of plurality accommodated by his theory. First, if the family is subject to the political conception of justice, then the plurality of society will be further limited. Second, if the family is not subject to the political conception of justice, then Rawls' theory is at a loss to explain individuals would be motivated to adhere to the principles of justice.

If the family is, in fact, subject to the principles of justice, then the plurality of his theory would be greatly restricted, for only families that live in accordance with the principles would be permissible. Restrictions on family interaction would stifle plurality in a great number of ways because many people's comprehensive doctrines originate through various aspects of family interaction. Furthermore, if a certain moral development is necessary for citizens to adhere to the political conception of justice, then this would further restrict the level of plurality insofar as a uniform moral development for all citizens would greatly reduce the level of plurality that would be produced in society.

If the family is not subject to the conception of political justice, then Rawls must explain why citizens would follow it. He seems to realize that he must go beyond simply saying that each person follows the principles for her own reason, and therefore, adds more to his explanation of the origin of motivation. In the process, however, Rawls makes his theory even more limiting for plurality. He states that "given certain assumptions specifying a reasonable human psychology and the normal conditions of human life, those who grow up under just basic institutions acquire a sense of justice and allegiance to those institutions sufficient to render them stable."[35] Again we must ask, is Rawls assuming that the basic institutions are simply political institutions that do not include basic social institutions like the family? How extensive are the basic institutions in *Political Liberalism*? How exclusive are the assumptions about a "*reasonable* human psychology" and the "*normal* conditions of human life"? Within Rawls' theory, there is clearly much more to a citizen's motivation for adhering to the political conception of justice than simply the fact that the principles are acceptable in terms of her comprehensive doctrine. The need for motivation, as required in order to achieve stability through common adherence to the political conception of justice, serves to make Rawls' theory much more exclusive, and therefore, much less accommodating of plurality, than Rawls is willing to admit.

To this point, we have discussed the limitations on plurality due to the need for "reasonableness," and the need for motivation. Both of these restrictions on plurality arise through Rawls' attempt to procure stability within the plural society. There is, however, another factor that contributes more than any other to the stability of the overlapping consensus – a factor that is not even taken into account by Rawls. This factor is the homogenization of comprehensive doctrines that will occur over time in any society guided by Rawls' theory. The reason for this homogenization is, in fact, the overlapping consensus and the public culture that arises from it, and the transforming force that these will exert on the multitude of comprehensive doctrines in society. Rawls neglects the reality of assimilation in his theory of political liberalism because he buys into the liberal myth of neutrality. The remainder of this paper will deal with the phenomenon of cultural homogenization and the myth of the neutrality of liberalism in the context of Rawls' theory.

The myth of liberal neutrality can be articulated as something like this:

> [R]ecognizing that many interests, cultural or otherwise, might have well-founded claims, liberal theory tries to look at the problem of divining political rules from a standpoint which owes its allegiance to no particular interest – past, current, or prospective.[36]

Such a neutral standpoint is an impossibility, for no value judgments, and therefore, no political decisions, can ever be made if no particular interest is adopted. Every view is a view from somewhere, yet liberal theorists often convince themselves that it is possible to have a view from nowhere. Rawls seems to have fallen into this trap in believing that the political conception of justice, and therefore, the public culture, is a neutral point of overlap between all comprehensive doctrines. Rawls misunderstands the realities of culture – exemplified by his belief that a shared culture can be created that remains fully confined to the public realm – and thereby neglects to anticipate the inevitable expansion of the public culture itself into a comprehensive culture. This expansion will result in the assimilation of comprehensive doctrines into the public culture, and will greatly reduce the level of plurality in the society theorized by Rawls. The public culture is unable to remain neutral between the comprehensive doctrines, for it exerts influence to transform these doctrines.

Let us take a closer look at the public culture. Rawls wants this shared culture to be fully confined to the political – in other words, he does not want this shared culture to be *comprehensive* – because he wants to allow

citizens to hold a variety of conflicting comprehensive doctrines that only need to overlap in agreement over the political conception of justice. Rawls says that the "public culture comprises the political institutions of a constitutional regime and the public traditions of their interpretation (including those of the judiciary), as well as historic texts and documents that are common knowledge."[37] As stated earlier, Rawls also describes the public culture as "a fund of implicitly shared ideas and principles"[38] that is drawn upon by all members of society. Clearly the public culture involves common intuitions of citizens, institutions, and an historic context in a specific territorial area. We can further assume that the public culture involves some form of common language, even though there may be more than one language used. Thus, the public culture includes intuitions, institutions, history, territory and language.

All of these factors, however, are the very factors required to give rise to a *comprehensive* culture, as opposed to simply a *public* culture. After all, a comprehensive culture that is shared by the members of a society is largely defined and shaped by its environment. As Chandran Kukathas articulates,

> Groups are constantly forming and dissolving in response to political and institutional circumstances. Groups or cultural communities do not exist prior to or independently of legal and political institutions. As Donald Horowitz has put it, 'Ethnic identity is not static; it changes with the environment.'[39]

Kukathas shows that a comprehensive culture has an "interactive quality"[40] with its environment, where this environment consists of the types of factors that we have seen to be included in the public culture. In fact, Kukathas argues that "group formation is the product of environmental influences."[41] Since the public culture includes the legal and political institutions of a society, and therefore, is the source of many of these "environmental influences," it will exert a transforming effect on the comprehensive doctrines within the same environment. The plurality of comprehensive doctrines is inevitably shaped and restricted by its environment, including the public culture of that environment, as only some comprehensive doctrines will coincide sufficiently with the public culture to be able to co-exist with it. As we have seen, the comprehensive doctrines and the public culture *must* coincide to some extent, for this is the very idea of the overlapping consensus.

A crucial mistake that Rawls makes is to create a misleading distinction between the political and nonpolitical identities of a person. Rawls describes this distinction as follows:

> Citizens usually have both political and nonpolitical aims. They affirm the values of political justice and want to see them embodied in political institutions and social policies. They also work for the other values in nonpublic life and for the ends of the associations to which they belong.... It can happen that in their personal affairs, or in the internal life of associations, citizens may regard their final ends and attachments very differently from the way the political conception supposes.[42] ... For we always assume that citizens have two views, a comprehensive and a political view; and that their overall view can be divided into two parts, suitably related.[43]

Although, for Rawls' purposes, there is some theoretical usefulness in this distinction, in the end it actually proves to be very misleading. Rawls proceeds to say that "the values of the special subdomain of the political – the values of a subdomain of the realm of all values – normally outweigh whatever values may conflict with them."[44] Here, in Rawls' distinction between the political and nonpolitical realms, we begin to see the problem. Since Rawls sees a definite distinction between these two realms, he fails to see that the political realm slowly begins to work its way in to the nonpolitical realm. Recall that the public culture is to be shared by all members of the society, although it is only supposed to be shared within the political realm of society. However, as this shared public culture becomes increasingly ingrained in the citizens, and its central ideas, history, institutions and language become more and more central to the identity of individuals, the public culture will begin to expand beyond the political realm into a comprehensive culture. A tension will be created between the political and nonpolitical identities of individuals, and they will be unable to keep these identities separate. This reality, coupled with the trumping ability of political values, illustrates how the public culture develops into a comprehensive culture and assimilates other comprehensive cultures and their comprehensive doctrines. As Rawls himself says, "values of the political are very great values and hence not easily overridden: these values govern the basic framework of social life – the very groundwork of our existence."[45] Thus, it seems that if the political identity of the individual were to change then the comprehensive doctrine would have to change accordingly. Through the process of reflective equilibrium, the public culture has the "authority required to exert a formative influence on the comprehensive doctrines."[46] The very intuitions, arising from the

public culture, that are involved in establishing this equilibrium would shift, pulling the comprehensive doctrine with it.

In short, the expansion of the ideas embodied in the political conception of justice, and hence the public culture, into a comprehensive culture will result in the assimilation of comprehensive doctrines into the values of the public culture. This will, in turn, greatly reduce the level of plurality in the society theorized by Rawls. The public culture is unable to be neutral in its approach to different comprehensive doctrines as it is shared by all members of society, and therefore, exerts influence to homogenize their different comprehensive doctrines.

An example here would be helpful. Imagine a reasonable, minority religious group that believes in God. Although there is nothing in the public culture that explicitly claims the falsity of their view, the very adoption of "indifference" serves to imply its falsity. Indeed, "indifference" is very often not indifferent, and in this way, the "liberal doctrine ... is at least integrationist if not assimilationist."[47] The trouble here is that monotheism and secularism are conflicting "truth-claims."[48] As such, there is

> the possibility that, in general, the notion of consensus based on avoidance/toleration may systematically work to the advantage of those comprehensive doctrines which do not affirm or rely on the truth of any controversial proposals. The kind of neutrality associated with toleration may, on this view, end up favouring certain kinds of comprehensive doctrines.[49]

This group's belief in God's existence is undermined by the secularism of the public culture, because the existence of secularism implies a lack of truth in the group's belief. The secular public culture is clearly not neutral to the comprehensive doctrine of this group. As Michael Milde explains,

> Without the social weight of public endorsement and visibility, religious programs may lose some of their authority and appeal. They may become "merely" private convictions, susceptible to revision in light of those values and ideas which do in fact enjoy public support. Ultimately, structural changes in the character of the comprehensive doctrine will have resulted from this voluntary adoption of internally reasonable practice.[50]

This process of "structural change" in the character of the comprehensive doctrine is, in fact, the process of assimilation. This change may be partial or complete. In any case, over time, and perhaps over generations, this group will likely be assimilated into the secularism of public culture. Faith

is simply too hard to maintain, especially for each successive generation, because the 'political' identity of the individuals is necessarily secular. Political contact with others, including adherents of other faiths with fundamentally different beliefs, as well as atheists and agnostics, is unavoidable, and so is the change that comes with such contact. The group's faith in God is marginalized and relegated to the 'background' culture of society. The essence of the religion is betrayed because its followers begin to regard spiritual living not as a pervasive way of living that affects all actions, but only as an isolated compartment of one's life. The group's size is insufficient to create a substantial strength in numbers, and because power in society is equally distributed by individual, the group does not have the political leverage or recognition to actively sustain its existence. As Kukathas states, "cultural communities [cannot] be insulated from the wider society."[51] Eventually the faith is weakened sufficiently such that only a token form of the faith, if any, remains.

In this paper I have not argued for the value or worth of any particular comprehensive doctrine, or the importance of their inclusion in the scope of plurality accommodated by this theory. In fact, the limitations placed on plurality by Rawls may very well be necessary in order to achieve an appreciable level of stability. For example, extremist comprehensive doctrines can probably not be accommodated by a theory concerned highly with stability. Furthermore, I have argued that this theory is inherently assimilationist in its approach, although not all comprehensive doctrines will be assimilated, and some will only undergo a partial change. Some groups will have the strength in numbers, the historical fixedness, or the sheer desire to be able to hold on to their general comprehensive culture, and they will do so. Other groups will not. In any case, no society could be stable without any level of assimilation. With this in mind, the value of Rawls' theory becomes apparent. The assimilation that would take place in this theory is very slow, and is a result of cooperative interactions between citizens with conflicting comprehensive doctrines. Thus, there is a voluntary component here. In some sense, the citizens have ownership over their own assimilation, for this type of assimilation is the inevitable result of common interaction, decision-making, cooperation, and living in close proximity. This is opposed to a malicious, intentional assimilation that is carried out as a result of hatred of difference. The former will certainly avoid the violence that has characterized forced assimilation attempts throughout the world. After all, in the case of *Political Liberalism*, the basic rights and liberties of individuals and the freedom of institutions are secured. Rawls' theory embraces difference, and as such, plurality in

name is affirmed; only forces that are, perhaps, beyond Rawls' control cause the assimilation of comprehensive doctrines. Within the currently predominant structure of the nation-state, Rawls may well allow for as much plurality as possible without sacrificing stability, while at the same time requiring as little assimilation as possible. A proper defence of this conclusion would involve a comparison of Rawlsian political liberalism to various other philosophical systems such as utilitarianism, libertarianism, and socialism, and would also require a detailed account of the need for stability within a society. Such an analysis, however, is beyond the scope of this paper. As such, in order to focus attention on the central thesis at hand, I will only say that my argument here is not based on a wholesale dismissal of Rawls' project. In fact, I believe that Rawls' theory does strike an appealing balance between stability and plurality within the current framework of the nation-state.

My intention in this paper has been to illustrate that Rawls is misleading in his claims about the level of plurality allowed for by his theory. This theory is not nearly as accommodating as Rawls claims; rather, it actually proves to be quite limiting for plurality. Rawls' contention that this "loose" theory accommodates a wide variety of conflicting and irreconcilable comprehensive doctrines turns out to be exaggerated, for the theory is actually quite demanding. Indeed, however, the procurement of stability is itself very demanding. We must not be deluded in believing that vast differences in moral, philosophical and religious doctrines can be unconditionally accommodated in a single stable society. In order to procure stability within a plural society, it may very well be necessary to limit the permissible comprehensive doctrines to reasonable, or liberalized, doctrines; to have citizens that are motivated to adhere to the principles of justice; and to have the initial plurality of comprehensive doctrines become somewhat unified through assimilation into the public culture. Still, in order to take seriously all possible comprehensive doctrines, we must readily acknowledge the restrictions and limitations to plurality that we build into our theories. If we do not, we will have failed to understand and appreciate the true breadth and depth of human plurality. Indeed, the need for such an understanding and appreciation is urgent. To theorize justice and stability within a plural society is our greatest challenge. To establish such a society will be our greatest triumph.

Notes

1 J. Rawls, *Political Liberalism* (New York: Columbia University Press, 1996).
2 J. Rawls, *A Theory of Jutice* (New York: Belknap, 1999).

3 Rawls' two principles of justice – also known as the "justice as fairness" principles – are as follows:

   a. Each person has an equal claim to a fully adequate scheme of equal basic rights and liberties, which scheme is compatible with the same scheme for all; and in this scheme the equal political liberties, and only those liberties, are to be guaranteed their fair value.
   b. Social and economic inequalities are to satisfy two conditions: first, they are to be attached to positions and offices open to all under conditions of fair equality of opportunity; and second, they are to be to the greatest benefit of the least advantaged members of society."

   J. Rawls, *A Theory of Jutice* (New York: Belknap, 1999) 5.
4 *Supra* note 1 at 22
5 *Ibid.* at 19.
6 *Ibid.* at 19.
7 *Ibid.* at 49.
8 *Ibid.* at 58.
9 *Ibid.* at 50.
10 *Ibid.* at xviii.
11 *Ibid.* at 175.
12 *Ibid.* at 175.
13 *Ibid.* at 36.
14 *Ibid.* at 12.
15 *Ibid.* at 23.
16 *Ibid.* at 23.
17 *Ibid.* at 11.
18 *Ibid.* at 134.
19 *Ibid.* at 14.
20 *Ibid.* at 14.
21 *Ibid.* at 36.
22 *Ibid.* at 37.
23 *Ibid.* at 36.
24 *Ibid.* at 59.
25 *Ibid.* at 59.
26 *Ibid.* at 59.
27 *Ibid.* at 59.
28 *Ibid.* at xxi.
29 *Ibid.* at 37.
30 *Ibid.* at 36.
31 C. Kukathas, "Are There Any Cultural Rights?" in Will Kymlicka, ed., *The Rights of Minority Cultures* (New York: Oxford University Press, 1995) 228-56.

32 *Supra* note 1 at 36.
33 *Ibid.* at 11.
34 *Ibid.* at 13.
35 *Ibid.* at 142.
36 *Supra* note 31 at 233.
37 *Supra* note 1 at 13.
38 *Ibid.* at 14.
39 *Supra* note 31 at 232.
40 *Ibid.* at 232.
41 *Ibid.* at 233.
42 *Supra* note 1 at 31.
43 *Ibid.* at 140.
44 *Ibid.* at 141.
45 *Ibid.* at 139.
46 M. Milde, "The Natural History of Overlapping Consensus" (1995) 76.2 Pacific Philosophical Quarterly 142-58.
47 *Supra* note 31 at 237.
48 *Supra* note 46 at 147.
49 *Ibid.* at 147.
50 *Ibid.* at 151.
51 *Supra* note 31 at 244

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Ethical Considerations of Human Genetic Engineering

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Abstract: This paper addresses some of the ethical concerns related to two different branches of human genetic engineering: gene therapy and gene enhancement. In order to assess the ethical ramifications of these two types of genetic intervention, this essay first explains the differences between somatic and germ-line engineering, and then sketches out the basic ethical guidelines used in current medical practice. This paper then explores some of the benefits and ethical dangers of the four different combinations of somatic/germ-line genetic therapy/enhancement. Included in this analysis are some suggestions of ethical concerns related to the practice of genetic screening, which is a necessary part of genetic engineering. The thesis of this paper is that the advantages behind the prudent use of somatic cell gene therapy outweigh its potential dangers, while the benefits of the other three types of genetic intervention are unlikely ever to outweigh the ethical concerns associated with them.

> "The human race has survived hitherto owing to ignorance and incompetence; but, given knowledge and competence combined with folly, there can be no certainty of survival."[1]

Genetic engineering is arguably the most perilous technology that humanity has ever encountered. With its numerous benefits for the treatment of individuals come grave hazards for humanity. This paper focuses on the ethical concerns of applying genetic engineering to human beings for disease prevention and enhancement purposes. In examining the ethical considerations of the topic, this paper attempts to balance the teleological and deontological approaches to ethics, in order to argue that while somatic cell gene therapy should be supported, the inherent physical and

social risks of genetic enhancement and germ-line therapy are not outweighed by their 'benefits.' In order to discuss this issue adequately, it is necessary both to describe the four basic types of genetic engineering and to outline the history of the debate. In addition, it is necessary to outline briefly some of the basic ethical standards of medical practice. Once such groundwork has been laid out, this paper will discuss the ethical concerns linked to each of the four types of genetic engineering. Finally, this paper refers to some religious concerns about human genetic engineering, which pose more general, non-religious issues.

Background Information

In "Gene Therapy," Eric Juengst and Leroy Walters categorise human genetic intervention or engineering into four basic types. The first is somatic cell gene therapy, which involves inserting normal genes into the non-reproductive cells of an unborn individual in order to replace defective cells for the purpose of disease prevention or cure (e.g. correcting the genes responsible for Huntington's disease). The second kind, known as germ-line gene therapy, has the same purpose as the first, but treats the reproductive cells instead. The third type, somatic cell gene enhancement, treats non-reproductive cells in an attempt to enhance the unborn individual's physical or mental capabilities (e.g. increased height or improved ability for memorization). Finally, the last type, called germ-line gene enhancement, has the same goals as the third type, but treats the reproductive cells.[2] While somatic cell and germ-line engineering can be distinguished by the fact that the former targets non-reproductive cells while the latter targets reproductive cells, the context of these terms requires further explanation. Somatic and germ-line cells differ greatly in their molecular biology. The important difference for the purposes of this paper, however, is that while any modifications to somatic cells die with the treated individual, the genetic engineering of germ-line cells is passed on through reproduction to the off-spring.[3] Furthermore, at the molecular level, germ-line engineering is considered to be both more complicated and uncertain than somatic cell intervention.[4]

The debate on government legislation and regulation of human genetic engineering has seen numerous changes throughout its history. Previous to the 1970s, with the exception of works such as Aldous Huxley's *A Brave New World* of 1932, the debate focused mostly on the pragmatic concerns of genetic engineering. While Huxley's novel painted a frightening pic-

ture of both the disappearance of the family and the use of genetic engineering to create an inferior servant class, the scientific world was focusing their ethical debates on artificial insemination.[5] The actual feasibility of human genetic engineering did not become an apparent reality until the 1970s, following first the synthesis of a viral genome in 1967 and then the isolation of genes from *E. coli* bacteria in 1969.[6] The debates of the 1970s focused mostly on the ethics of the related topics of genetic screening and the possible biohazards of this new field of research. However, important books were written such as Paul Ramsey's *Fabricated Man*, which outlined some of the general ethical concerns of genetic engineering.[7] The late 1970s and mid-1980s saw not only the beginning of religious discussions about genetic engineering by international bodies such as the World Council of Churches in 1979, but also the rise of governmental inquiries by the Council of Europe and a U.S. ethics commission in the same year in 1982. Most groups accepted that only research into somatic cell gene therapy was ethically permissible and agreed that some form of specialized public control over such research would be necessary.[8] The last fifteen years have witnessed the release of public policy statements on genetic engineering by numerous European countries such as Germany, France, Britain, Italy and Switzerland, as well as, by Canada and the United States. Most countries have continued to condemn germ-line therapy for the present time. These policy statements have also been followed by the creation of bodies such as the Recombinant DNA Advisory Committee (RAC) in the U.S., which was given the task of establishing proper protocol and approving all studies into somatic cell gene therapy.[9] Currently, there is much research being done on using genetic engineering to prevent diseases such as cystic fibrosis and Huntington's disease. The ethical considerations of all forms of genetic engineering continue to be important topics of discussion and academic writing.

In order to comprehend the ethical issues linked to genetic engineering, it is important to be sensitive to the acknowledged ethical guidelines behind medical research and treatment involving human beings. Two important sources of principles that the medical profession agrees upon are the guidelines outlined at the Nuremberg war crime trials of 1945–46, and the *Declaration of Helsinki*, which was adopted by the World Medical Assembly in 1964. One important principle is that not only is it necessary to have the subject's consent, but that the subject should also understand the nature, duration and purpose of the procedure.[10] Given both the complex nature of genetic engineering and the fact that subjects are treated

before birth, the issue of informed consent poses a major ethical concern. Another guiding medical principle is that the risk – both to the individual and to society – should never outweigh the benefits of the treatment. Furthermore, researchers must be able to end the experiment at any point they deem it likely to result in death or serious injury, or at the request of the subject.[11] This last principle highlights another concern relevant to the ethics of genetic engineering; the consequences of genetic manipulation are quite enigmatic and once an unborn person has been treated it is unlikely that the change could be undone.

Additional acknowledged medical codes further complicate matters. For example, with regard to the issue of consent, other guidelines state that if the patient is not competent to make his/ her own choices, then the legal guardians may decide for him/her even though it would be preferable for the subject to consent as well.[12] The obvious ethical considerations relevant to genetic engineering are that the prenatal subject cannot consent to such treatment and that the choices of the legal guardians, especially in the case of genetic enhancement, may not correspond to the unborn individual's wishes. Another complication is that the *Declaration of Helsinki* states, "... a physician must feel free to use a new diagnostic and therapeutic measure, if in his or her judgment it offers hope of saving life, reestablishing health or alleviating suffering."[13] Thus, in the case of genetic engineering there is an ethical uncertainty. For while the treatment would save lives and alleviate the suffering of those afflicted with genetic diseases, the negative consequences of such treatment could be far worse than the disease (as we will see later) – especially in treating late setting illnesses like Huntington's and Alzheimer's. This is because individuals with these diseases are able to lead perfectly normal lives for several decades, making it unclear whether it is worth risking the damage of many healthy years in order to prevent ailments which would strike individuals late in life. Furthermore, scientists have pointed out that there exist two different levels of concern that must be considered. On the microscopic level there is the possibility of saving the life of an individual, but on the macroscopic level there could be disastrous repercussions for the human species.[14] Having generally outlined the ethical concerns of genetic treatment and experimentation on humans, it begins to become clear why some forms of genetic engineering could be more ethically sound than others. Nevertheless, a full examination of the issues specific to each of the four types of genetic engineering is necessary before such conclusions can be drawn.

Somatic Cell & Germ-Line Gene Therapy

When analyzing the ethical concerns of the patient in somatic cell gene therapy, it is often noted that such therapy is very similar to other medical treatments such as vaccination, and thus, shares many of the same concerns. These considerations centre on the numerous anticipated risks and benefits of this kind of treatment for the unborn individual. Since somatic cell gene therapy relies on the use of domesticated retroviruses to integrate the normal gene to the somatic cell of the subject, there is a risk that the virus will be activated and infect the subject or that the retrovirus will activate cancer-causing genes.[15] Although seemingly bizarre and remote possibilities, the point is that while somatic cell gene therapy is similar to other medical treatments, it has an added level of risk and technological intrusion that lessens the predictability of its effects. As a result there is the question of whether a less risky but effective alternative treatment exists. In the case of combined immune-deficiency in children for example, bone marrow transplants seem to be a permanent treatment for the disease.[16] However, for many genetic diseases the alleviation of human suffering can not be achieved through means other than somatic cell therapy.

The ethical arguments for and against somatic cell gene therapy can also be examined in terms of the wider considerations for the human species. The arguments in favour of somatic cell gene therapy are as follows. First, as was previously mentioned, such treatment is quite similar to conventional practices of medicine, but somatic cell gene therapy extends the alleviation of suffering through to preventing or curing genetic diseases. Second, proponents argue that the current measure for genetic disease prevention – selective abortion based on the results of genetic screening – is morally repulsive," ... rather like weeding a garden of unwanted specimens," and that somatic cell gene therapy is a more humane option.[17] Third, others argue that humanity needs to be updated to the new lifestyle of the individual. Alex Felice notes that current disorders such as diabetes and obesity may have been beneficial in the evolutionary past when much of humanity's energy was spent searching for food, but that humanity's new sedentary lifestyle has converted the advantages of yesterday into the diseases of today.[18] Somatic cell therapy can eliminate these outdated aspects of human biology. Fourth, it is important to note that increased competence in medicine is allowing people with certain genetic diseases to live to the age of reproduction and as a consequence they have been able to pass on the 'defective' genes far more than would

have been possible in nature.[19] Since it seems reprehensible for governments to prohibit people who are either carriers of, or affected by, genetic disease from reproducing, somatic cell gene therapy seems to be an attractive alternative. Finally, everyone deserves the best medical treatment possible, and if somatic cell gene therapy is the only way to alleviate human suffering, then there exists a responsibility to provide such treatment.

At the same time many ethical concerns arise from somatic cell gene therapy. First of all, such a procedure presupposes the ethically benign nature of the genetic testing and screening necessary for such treatment, but in reality there exist many moral issues related to such testing that this paper shall examine in more detail later. Second, there is the problem that the consent of the subject for the genetic alterations is not present. Such a decision would have to be taken by the parents of the child. Some have argued that bringing technology into the creation of children separates reproduction from an act of love. This might actually diminish the bond between parents and offspring thus eliminating the inclination of the former to sacrifice themselves for their children.[20] Furthermore, it is likely that an individual would not regret his/her parents consenting for his/her cystic fibrosis or Huntington's disease to be prevented, but if the scope of ailments that are classified as diseases widens to include aging or 'excessive' aggression, then objections to such 'treatment' are likely to arise. This of course indicates another danger, which is the fact that terms such as 'disease' are extremely vague. For example, many twin and adoption studies have suggested that criminality may be partially due to the inheritance of the 'criminal genes' which may be responsible for the distinct biochemical and neurological processes that are often correlated with criminal behaviour.[21] The question is should a criminal predisposition then be considered a disease? Another question arises in reference to the example of regarding aging as a disease. Burke Zimmerman notes that since much of the social structure is age conscious, if one were to modify the genes controlling aging, the adjustments in the psychological and socio-economic structure would be overwhelming.[22] Continuing along this line, since somatic cell gene therapy is likely to be very expensive, it would extend the gap between the rich and poor into areas such as basic health and longevity. Consequently, in the interest of social justice governments would have to subsidize the treatments.[23] However, if such a scenario were to emerge, one would have to ask whether public funds were being properly allocated – presumably the vast funds necessary for the subsidization would have to come from somewhere. Finally, even assuming genetic therapy is prudently utilized and the economic concerns are assuaged, since such treatment is only possible prior to the birth of the affected individual, the concern will then arise as to the treatment of existing persons that have to live with the diseases eradicated by genetic therapy. It is important to consider the basic discrimination and lowered feelings of self-worth for the individuals affected. These concerns are reexamined in more detail in the later sections of this paper.

Compared to the concerns of somatic cell gene therapy, the ethical concerns of germ-line gene therapy are far more grave and offer minimal added benefits. At the present level of technological competence and scientific knowledge of germ-line cells, even proponents of such gene therapy agree that engaging in human trials at this time would be irresponsible at best.[24] Nevertheless, there are several arguments for engaging in germ-line gene therapy when the knowledge of germ-line cells matches that of somatic cells. Proponents first of all argue that if genetic diseases are 'molecular' the only true cure is germ-line gene therapy. With this argument they essentially accuse somatic cell gene therapy of dealing only with the symptoms of genetic disease.[25] Not only that, but as more carriers of genetic diseases survive to a reproductive age through somatic cell gene therapy, the need will increase for somatic cell treatment, whereas, the germ-line approach corrects the problem in all future generations and also reduces the long-term demand for the expensive and risky genetic screening process.[26] In fact, some proponents go so far as to argue that it is the responsibility of the present generation to ensure that no genetic diseases are passed on to future generations.

"Unintended consequences can be a worry when one has the power of 'God' without divine foresight."[27] Those who present the ethical arguments against germ-line gene therapy often concentrate on the fact that the more complicated germ-line intervention will have a greater degree of unpredictability and may pass on unintended changes to future generations. Furthermore, concerned scientists are quick to point out that once such unintended changes took place it would be extremely difficult to stop them from spreading. We would be replacing one genetic disease with another. Even if no unwanted changes occurred, there would be no way of foreseeing the effects of such permanent interference with the natural course of life.[28] In addition, germ-line gene therapy multiplies the gravity of the concerns surrounding somatic therapy. There is still the issue of a lack of consent to the genetic treatment as in somatic cell intervention. Yet, whereas in the latter case only one individual could be affected by the decisions of his/her parents, targeting germ-line cells

could affect an infinite number of generations. Another danger of germ-line gene therapy is that, in the long run, it neglects the environmental origins of diseases such as heart disease and cancer.[29] Even if it were possible to engineer humans to be resistant to noxious environmental agents,[30] it would be far wiser to remove and avoid creating the toxic elements in the first place. Another important point is that the permanent elimination of certain genetic diseases could also endanger the survival of the human species by further narrowing the scope of human genetic variation. For example, some scientists believe that heterozygotes carrying only one copy of the gene for cystic fibrosis may have been resistant to cholera;[31] thus, in narrowing the genetic variation in humans there is the possibility that a drastic environmental change or new virus could push the species toward the brink of extinction. Lastly, with all these added risks it is possible that germ-line gene therapy comes with no real advantages. As Alfred Cuschieri argues, since genetic mutations occur all the time, genetic diseases will never be completely eliminated, and thus, the need for genetic screening and further gene therapy will always be present.[32]

Both germ-line and somatic cell gene therapy are dependent upon genetic screening to assess the genetic status of potential subjects. While such tests appear to be ethically benign, serious moral concerns are attached to genetic screening. The benefits of genetic testing are obvious even in the absence of genetic engineering; testing allows parents both to weigh the risks of creating a disabled child and to consider alternatives such as artificial insemination or adoption.[33] One ethical concern is that the physical and psychological burdens of genetic screening are borne disproportionately by women, who are typically tested first. In cases where the embryo is tested, the woman is also affected (especially if the embryo in her body is found to have a genetic disease and abortion may have to be considered; this is a choice many women would not want to make).[34] Furthermore, as with any test there are no certain results – even a five-percent rate of error poses a real problem in cases where drastic measures are or are not taken based on the results of the genetic test. The expense of genetic screening already results in many families being unable to afford the tests (*ergo* also unable to afford the best medical care for their family). The increase in genetic testing, which the use of gene therapy would entail, would magnify the existing problem. Another important point is that the issues of consent and confidentiality are interwoven. In the case where children or embryos are tested the parents are being inadvertently tested as well.[35] Does the spouse have a right to know the

results? Should siblings be alerted when a brother/sister is found to have a serious genetic disease?

It has been demonstrated that the risks of using both forms of genetic engineering for the prevention and cure of genetic diseases are many. Furthermore, the additional hazards behind germ-line gene therapy that are accompanied by no substantial additional advantages make it difficult to support germ-line modification. However, the risks behind somatic cell gene therapy can be avoided with the help of safeguards, education, and adequate regulation. Arguments that take nature to be morally normative in stating that even temporary deviations from nature are necessarily wrong, do not recognize Hume's is/ought distinction – i.e. that just because things are a certain way, does not imply that they should be that way – and as such do not refute the moral responsibility to ease human suffering through responsible medical treatment. Many authors have noted that since the effects of such treatment will affect the whole of humanity, it is imperative that the general population be involved in regulating gene therapy.[36] It is, therefore, also essential that the public be informed about the nature and concerns of somatic cell gene therapy through education, not only making them knowledgeable regulators, but also equipped for informed consent should they ever find themselves in need of gene therapy.

Somatic Cell & Germ-line Gene Enhancement

While it is one thing to argue for genetic engineering as a measure in disease prevention, it is quite another to support the use of this technology for the purpose of genetic enhancement. Even at the level of somatic cell enhancement, few proponents of genetic engineering argue for such measures. One supporter is Lewis Wolpert who downplays the grave nature of somatic cell gene enhancement in his work *The Unnatural Nature of Science* by comparing it to cosmetic surgery. The difference is simply that the scope of modifications of somatic cell enhancement would be extended to the mental sphere.[37] He adds that it is fundamental to democracy for an adult to be free to seek access to chemicals that could improve his/her well-being as long as such access does not harm anyone else. As for the concern that adults would in fact be choosing the said enhancements for their unborn children, Wolpert states that such 'advantages' are already being given to children when parents send their progeny to expensive schools and private lessons.[38] Lastly, Wolpert contends that the perceived dangers in genetic engineering are in fact similar to those of treatments

such as vaccination, and that the hostility towards genetic engineering is due to the unnatural nature of science. The lay person does not understand the complex technology, and thus with increased public education fears should subside.

Only in the call for increased public education do the views of Wolpert coincide with those of this paper. However, an increase in education will not diminish the hostility towards genetic enhancement since the arguments supporting such a procedure are so questionable. First, there are vast problems with acting on the power to determine what sort of people there should be; one of the least palatable ideas is creating children that are engineered according to the fashions of the decade. There is a strong sense in which we might say it is intuitively wrong for parents to afflict their offspring with lifelong aesthetic and mental modifications that reflect the trends of a generation. Second of all, philosophers such as Qiu Renzong argue that it is unknown whether tampering with specific characteristics such as height, weight, or muscle strength, will disturb the delicate balance of the body.[39] As for the dangers of allowing parents to tamper with mental traits of a future individual," ... how many parents would elect to have obedient kids?"[40] However, the most frightening aspect of somatic cell gene enhancement is that it foreshadows the scenario of *A Brave New World* in which a select few are the tallest and most intelligent, while the rest are enslaved dunces destined to perform only menial tasks.

Not recognizing Hume's is/ought distinction, Wolpert states that the privileged classes already give their children an advantage in better education. He then goes on to encourage worsening of the social situation through the use of somatic cell gene enhancement. Ironically, in the sections preceding his discussion on genetic engineering, Wolpert mentions Rawlsian justice.[41] It is in fact through Rawls' second principle of justice that this paper wishes to rebut Wolpert's above argument for genetic enhancement. This principle states that the privileged positions in society must be open to all people and the appointments to them must be determined by merit.[42] While it is true that in theory positions in the workforce would be open to all, if privileged members of a community were to undergo somatic cell gene enhancements to increase their memory or to refine certain mental skills, in practice normal individuals would be unable to compete against enhanced minds. Thus, it is conceivable that such a society would dispense with the formality of giving everyone a fair chance, and privileged positions would automatically be given to those

who had undergone mental modifications. Furthermore, as technology improved in such a society, the enhanced individuals would become outdated in the same manner computer hardware does, and fresh generations equipped with the 'newest' minds would take over. In the meantime those unable to afford somatic cell gene enhancement would be left on the other side of an expanding gulf of opportunity defined by money and genes instead of by merit.

Germ-line gene enhancement has the same lack of backing from the intellectual community as somatic enhancement. Tristram Engelhardt Jr. is one of its only avid supporters. Engelhardt argues that "... the human genome as the product of a natural process includes a set of dispositions, abilities, and functions that are at best good adaptations to a past in which humans no longer find themselves."[43] He gets around the issue of consent by adding that if it were possible to engineer humanity to be resistant to disease, to be more intelligent, and to have a better physique, it is inconceivable that future generations would want to be denied these benefits, and so there might in fact be an obligation to bestow humanity with such improvements.[44] Furthermore, Engelhardt hints at the possibility that the preferences of distant future generations – which may not even come to exist – be weighed as secondary in relation to the benefits of proximate future and present persons.[45] Lastly, he states that as long as technologists act with prudence, the perceived hazards of germ-line gene enhancement will be nothing more than, "Fantasies of long-range disasters ... outbalanced with the prospect ... [of] crucial advantages."[46]

Experts argue that it is one thing to rid the world of Huntington's disease, and quite another to increase the stock of 'intelligence' in humanity.[47] Furthermore, it is immoral to project current values and assessments of vague terms like 'intelligence' or 'fitness,' to future generations. Qiu Renzong points out that different people in a society disagree on basic ideas such as ideal height: the sports coach would say 2.5 meters, while those concerned with efficiency would opt for 1.6 meters.[48] If all the members of society can not agree on basics such as ideal height, what is the chance that future generations will accept current conceptions of intelligence? Ramsey argues that all genetic modifications would have to tend toward a defined end. If we are unable to determine the ends of future generations, it would be irresponsible to permanently implant our current preferences into the human genome.[49] Furthermore, the hazards in such genetic enhancement to the survival of the human species are significant and not mere 'long-range fantasies.' As previously noted, the narrowing

of variety in human genes is a risk to the adaptive capabilities of the human species. If the elimination of genes comes to include those that are responsible for specific mental and physical characteristics, and not just genetic diseases, then the survival of humanity will be challenged by the first radical change in the environment. Lastly, it is a mistake to assume that technologists – who are subject to a profit driven economy – would necessarily act in the best interests of man by promoting germ-line gene enhancements.

On a larger ethical and philosophical level, germ-line gene enhancements are a threat to the goodness in human acts. It is possible that if aggression, sloth, and envy could be, and were, removed from human genes,[50] there would be greater efficiency, and possibly less warfare and crime in society. However, the question arises as to whether a robot that performs a good act is acting virtuously, insofar as the robot is simply predisposed to act in that way. The point here is that we intuitively do not assign as much moral worth to those actions that the actor does "naturally" and without any motivational difficulty.[51] If it is simply 'in our wiring' to act in a certain way, then it is unclear that our actions should merit praise – at least in contrast to those actions that are performed *despite* an inclination not to do them. Furthermore, if a robot is programmed to perform only good deeds, then it never has the option to act immorally. This seems to undermine substantially a notion that is central to what it is to be human, namely the belief that we are free. Consequently, it also upsets our entire notion of ethics, which is dependent on the belief that we can choose how to act in any given situation. If we remove that option it is appears as though our concept of morality is removed with it. If germ-line genetic enhancement some day eliminates the human ability to perform acts of evil, it will at the same time rob humanity of the goodness in the execution of benevolent deeds. Indeed, it will force us to reconsider exactly what it means to be human.

Conclusion

Many of the arguments in this paper link three types of genetic engineering to some sort of revolution for humanity. It is, however, important to stress that while this paper argues ardently against the use of certain types of genetic engineering on humans, it by no means argues for any restrictions on the search for genetic knowledge. Imposing such restrictions on science would be as great a danger to society as genetic engineering. This

essay instead calls for greater public education into matters of genetics so that the people who could be most affected by any misuse of the new genetic technology would have a greater role in its regulation. This paper also accepts that when used prudently, somatic cell gene therapy could prove to be an effective tool in the reduction of genetic disease and human suffering, and as such – if we are to remain loyal to the human duty of providing the best responsible medical treatment – that it should be included as a medical option when it reaches an adequate level of safety. However, it is doubtful that the dubious advantages of human germ-line gene therapy could ever outweigh its increased risks to humanity. Finally, it seems certain that both forms of genetic enhancement should be necessarily regarded as an irresponsible and titanic hazard both to social justice and to the survival of the human species.

Notes

1 B. Russell as cited in: L. Galea, "Foreword" in E. Agius and S. Busuttil, eds., *Germ-Line Intervention and Our Responsibilities to Our Future Generations* (London: Kluwer Academic Publishers, 1998) viii [hereinafter *Germ-Line*].
2 E. Juengst and L. Walters, "Gene Therapy" in W. Reich , ed., *The Ethics of Sex and Genetics* (New York: Macmillan Reference USA, 1995) 256 [hereinafter *Sex and Genetics*].
3 A. Cuschieri, "Screening for Genetic Disease: What are Moral Constraints?" in *Germ-Line, supra* note 1 at 8.
4 E. Juengst and L. Walters, *Sex and Genetics, supra* note 2 at 257.
5 *Ibid.* at 256.
6 *Ibid.* at 257-8.
7 *Ibid.* at 258.
8 *Ibid.* at 259.
9 *Ibid.* at 259-60.
10 "The Nuremberg Code" in R. Bulger, E. Heitman, and S. Reiser, eds., *The Ethical Dimensions of the Biological Sciences* (Cambridge: Cambridge University Press, 1993) 145 [hereinafter *Ethical Dimensions*].
11 *Ibid.* at 146.
12 "Declaration of Helsinki" in *Ethical Dimensions, supra* note 10 at 159.
13 *Ibid.* at 161.
14 G. Jones, *Brave New People* (Leicester: Inter-Varsity Press, 1984) 194.
15 Q. Renzong, "Germ-Line Engineering as the Eugenics of the Future" in *Germ-Line, supra* note 1 at 112.

16 E. Juengst and L. Walters, *Sex and Genetics*, *supra* note 2 at 260.
17 A. Cuschieri, "Screening for Genetic Disease: What are Moral Constraints?" in *Germ-Line*, *supra* note 1 at 8.
18 A. Felice, "Guardianship by Peer Review in Genetic Engineering and Biotechnology" in *Germ-Line*, *supra* note 1 at 122-3.
19 P. Ramsey, *Fabricated Man: The Ethics of Genetic Control* (New Haven: Yale University Press, 1971) 3.
20 R. Shweder, "Genetics and Human Behaviour: Philosophical and Ethical Issues" in *Sex and Genetics*, *supra* note 2 at 283.
21 P. Brennan, S. Mednick, and J. Volavka, "Biomedical Factors in Crime" in J. Wilson and J. Petersilia eds., *Crime* (San Francisco: ICS Press, 1995) 68 [hereafter *Crime*].
22 B. Zimmerman, *Biofuture: Confronting the Genetic Era* (New York: Plenum Press, 1984) 198.
23 *Ibid.* at 197.
24 E. Juengst and L. Walters, *Sex and Genetics*, *supra* note 2 at 263.
25 E. Juengst and L. Walters, *Sex and Genetics*, *supra* note 2 at 263.
26 E. Juengst and L. Walters, *Sex and Genetics*, *supra* note 2 at 262.
27 R. Shweder in *Sex and Genetics*, *supra* note 20 at 283.
28 S. Privitera, "Moral Reasoning in Bioethics and Posterity" in *Germ-Line*, *supra* note 1 at 30-1.
29 Proctor as cited in: A. Deepandung & W. Noonpakdee, "The Moral Status of the Human Gene" in *Germ-Line*, *supra* note 1 at 15.
30 See T. Engelhardt, "Human Nature Genetically Re-engineered: Moral Responsibilities to Future Generations" in *Germ-Line*, *supra* note 1 at 57.
31 A. Felice, *Germ-Line*, *supra* note 18 at 122.
32 See A. Cuschieri, *Germ-Line*, *supra* note 1 at 8.
33 This is not to say that the alternatives do not have ethical concerns in themselves.
34 T. Murray and J. Botkin, "Genetic Testing and Screening: Ethical Issues" in *Germ-Line*, *supra* note 1 at 320.
35 *Ibid.* at 323
36 S. Spicker, "The Unknowable Effects of Genetic Engineering on Future Generations (Or, Who Guards the Genetic Engineers in Democratic Republics)" in *Germ-Line*, *supra* note 1 at 158.
37 L. Wolpert, *The Unnatural Nature of Science* (London: Faber & Faber, 1993) 167.
38 *Ibid.* at 167.
39 Q. Renzong, *Germ-Line* , *supra* note 15 at 114.
40 *Supra* note 22 at 95.
41 *Supra* note 37 at 164.

42 J. Rawls, "Justice as Fairness" (1957) 54 Journal of Philosophy 654.
43 T. Englehardt, *Germ-Line*, *supra* note 30 at 53.
44 *Ibid.* at 56–7.
45 *Ibid.* at 59.
46 *Ibid.* at 57.
47 R. Shweder, *Sex and Genetics*, *supra* note 20 285.
48 Q. Renzong, *Germ-Line* , *supra* note 15 at 114.
49 Q. Renzong, *Germ-Line* , *supra* note 15 at 54.
50 I am by no means stating that such emotions are limited to genes.
51 See I. Kant, *Groundwork of the Metaphysic of Morals*, trans. H.J. Paton (New York: Harper & Row, 1956) 11.

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