

# Is diversity good?

## Six possible conceptions of diversity and six possible answers

Mathieu Bouville\*

*Institute of Materials Research and Engineering, Singapore 117602 and  
Institute of High Performance Computing, Singapore 117528*

Prominent ethical and policy issues such as affirmative action and female enrollment in science and engineering revolve around the idea that diversity is good. However, a precise definition is seldom provided. I show that diversity may be construed as a factual description, a craving for symmetry, an intrinsic good, an instrumental good, a symptom, or a side effect. These acceptations differ vastly in their nature and properties. Some are deeply mistaken and some others cannot lead to concrete policies. It is thus necessary to clarify what one means by ‘diversity.’ It may be a neutral description of a given state; but this is insufficient to act. The idea that there should be the same representation in a specific context as in the overall population is both puzzling and arbitrary. Diversity as intrinsic good is a mere opinion, which cannot be concretely applied; moreover, the most commonly invoked forms of diversity (sexual and racial) are not intrinsically good. On the other hand, diversity as instrumental good can be evaluated empirically and can give rise to policies, but these may be very weak. Finally, symptoms and side effects are not actually about diversity. I consider the example of female enrollment in science and engineering, interpreting the various arguments found in the literature in light of this polysemy.

Keywords: affirmative action; ethics; female students; higher education; minority students; philosophy; policy

Article published by *Science and Engineering Ethics* — doi: 10.1007/s11948-007-9038-1  
Available at: <http://www.springerlink.com/content/1001u58569x7wt15/>

“All men of sound reason are disgusted with verbal disputes, which abound so much in philosophical and theological inquiries; and it is found that the only remedy for this abuse must arise from clear definitions, from the precision of those ideas which enter into any argument, and from the strict and uniform use of those terms which are employed.” Hume<sup>1</sup> (part XII, p. 85)

### I. INTRODUCTION

Diversity is at the core of widely discussed ethical and policy issues such as affirmative action in higher education,<sup>2–11</sup> female enrollment in science and engineering departments,<sup>11–21</sup> personality types amongst engineers,<sup>22,23</sup> workplace diversity,<sup>6,7,24,25</sup> biodiversity,<sup>26,27</sup> and even architecture.<sup>27</sup> To Sullivan<sup>12</sup>, “the goal of engineering education should be the full participation of women, people of color, low-income students, and first-generation, college-bound young adults;” while this may be a goal, calling it “the goal of engineering education” makes no sense. Also, many people “are using largely untested assumptions as a basis for diversity policies, strategies, and actions.”<sup>25</sup> Clearly, in spite of its “kudzu-like progression”<sup>28</sup> in recent years, diversity is seldom defined precisely and it is generally used as a political weapon rather than as a rational concept.

As philosopher and Nobel laureate Bertrand Russell pointed out, “everything is vague to a degree you do not realize till you have tried to make it precise.”<sup>29</sup> Who does not state precisely and explicitly why diversity should be increased cannot realize that ‘diversity’ can have several meanings — “differ[ing] crucially”<sup>8</sup> from one another — and is bound to confuse them. Believing that people who have the same name are the same person would seem ludicrous; it is nevertheless a very common error when it comes to diversity. For instance, to Pless and Maak<sup>24</sup> diversity is good for business because it “can become a competitive advantage.” They conclude that “diversity is, first and foremost, a cultural question and thus a question of norms, values, beliefs and expectations. As such, it is an ethical question and determined by some very essential founding principles of human coexistence.” As “competitive advantage” diversity is plainly an instrumental good (see Sec. III), whereas as “ethical” it is intrinsically good (Sec. II) or perhaps a symptom (Sec. IV). These wholly different conceptions of diversity cannot be so equated.

“The force of these beliefs [in diversity] is such that the importance of diversity has become an article of faith in the higher education community.”<sup>4</sup> (p. 3) Indeed, the source of the problem is that issues related to diversity are seen as essentially political: people first decide whether they like diversity and then look for a rationalization. Paraphrasing Bradley, one may say that diversity is the finding of bad reasons for what we believe upon instinct. The merits of an argument then come more from its capacity to support a pre-established conclusion than from its logical validity. As Nietzsche<sup>30</sup> wrote, “convictions are more dangerous enemies of truth than lies.”

Asking whether diversity is good thus “has a heretical sound. However, like many other heresies, this one is all the more worth committing because it challenges a rarely examined orthodoxy.”<sup>7</sup> I will first determine what diversity means and what its properties are before applying the concept (to the case of female enrollment in science and engineering, in Sec. V). This way we can talk of diversity clearly and unambiguously, and thus make sure that any policy based on diversity is justified and consistent.

## II. DIVERSITY AS INTRINSIC GOOD

It is common to hold that “the goal is to enable a more diverse student population to be more successful in their engineering education.”<sup>22</sup> But why this goal? It is sometimes claimed (and very often assumed) that diversity is intrinsically good, i.e. good in and for itself. One may for instance say that happiness, love, and friendship are intrinsically good. Is diversity good as an end too?

### Good or not bad?

“Given the almost unlimited variety of job descriptions within engineering, it is safe to say that students with every possible learning style have the potential to succeed as engineers.”<sup>23</sup> This means that all kinds of people can be successful as engineers. (Whether this is in fact true needs not concern us here.) From this, some may argue that one cannot prevent some students from becoming engineers by claiming that they could not be successful. Yet this does not imply that one should promote diversity. It does not even show that one should not hinder diversity. After all, if diversity is neutral, its absence is as good as its presence. One cannot argue that diversity is not bad, so that it should be promoted. Its promotion is justified only if diversity is good, rather than just not bad.

Important note. ‘Not good’ does not mean bad: something may be ethically neutral or may have nothing to do with ethics. ‘Not intrinsically good’ does not mean not good: something may be good without being intrinsically good.

### Is diversity intrinsically good?

According to Killenbeck<sup>4</sup>, “one of the most significant and persistent problems in this area [affirmative action] has been a dogged insistence by the higher education establishment that the intrinsic importance and positive impact of diversity should be taken as an article of faith” (p. 11). Does the intrinsic goodness of diversity have to be taken as “an article of faith?” Yes, because “questions of ultimate ends are not amenable to direct proof.”<sup>31</sup> Indeed, what kind of experiment or observation could prove diversity to be good in itself? One must thus acknowledge with Moore<sup>32</sup> that “anything which is good as an end must be admitted to be good without proof” (§ 39). What is needed to believe that diversity is good as an end is not a rational proof but what Kierkegaard called a leap into faith, i.e. “an exercise in pure deference.”<sup>4</sup> (p. 13) In contrast, it is possible to show that diversity is not intrinsically good if the idea is inconsistent. What method can one use? “That of considering what value we should attach to it if it existed in absolute isolation, stripped of all its usual accompaniments” (Moore<sup>32</sup>, § 53).

If diversity were the only (or the most important) good then we would have to increase the number of women in prison, where they are under-represented.<sup>18</sup> There should also be more sickness in the world since that would increase diversity. This is an absurd conclusion: nobody would wish that there were more terminally ill people for the sake of diversity, instead everyone would be happy with everyone being healthy even if this lowers diversity. Clearly, diversity cannot be the only or the supreme good: it may at most be one good amongst others. In fact, diversity may very well be good but of

marginal importance (e.g. to be used as a tie-breaker if everything else is absolutely the same). But then the fact that something contributes to diversity would be a negligible detail, so that we could ignore diversity altogether. One cannot prove that diversity is important anymore than one can prove it to be intrinsically good.

### The scope of diversity

Let us assume for the sake of argument that diversity is both intrinsically good and important. For practical purposes, we need to know exactly what one means by diversity, we need to know what kind of diversity we are talking about. If diversity is defined very broadly, everybody contributes to it (everybody is different from the majority in at least one way), so that it is impossible to rely upon it to choose between people (for instance when hiring).

It seems that the most natural solution is to dismiss unimportant categories. But how to tell them apart? “Why single out persons of color, women, persons with disabilities, and veterans, but not, say, homosexuals, the elderly, albinos, or Quakers?”<sup>8</sup> What makes skin color more important than hair color? Many would invoke a historical disadvantage or anti-discrimination laws to give more importance to the former. But if diversity is supposed to be *intrinsically* good it cannot depend on history or the law. Another difference between skin and hair is that people pay much less attention to the latter. This makes diversity essentially about countering spontaneous behavior (see ‘diversity as symptom’ below). But then the goodness of diversity is not intrinsic either (it cannot be both intrinsic and a reaction). The reasons why people focus on skin rather than hair are not compatible with the idea of an *intrinsic* good. (It means that people who hold that diversity is intrinsically good for these reasons are mistaken, but not necessarily that diversity is not intrinsically good.)

Let us consider a man and a woman who have had essentially the same life, who have the same tastes, interests, etc. Verily, the woman will not contribute much more to diversity than the man since, apart from her sex, she is just like him: many men are far more different from him than she is. One will reply that it is very unlikely that a man and a woman be so similar because they have a different ‘life experience.’ This may be true, but what this means is that being a man or a woman is not directly relevant, it merely correlates with a form of diversity that is supposed to be good. “Stripped of all its usual accompaniments” sexual difference is not good (or only negligibly so). For the same reason, racial diversity is not good in itself. If sexual and racial diversities are good, they are so only indirectly. This was recognized by the U.S. Supreme Court: in *Gratz v. Bollinger* it rejected the admission system of the College of Literature, Science, and the Arts at the University of Michigan that granted points to students simply for being minorities while in *Grutter v. Bollinger* it upheld the admission system of the Law School of the same university because it looked at the actual contribution to diversity of students one by one.

### From intrinsic good to policy

As already pointed out, the idea that diversity is intrinsically good and important is arbitrary. Consequently, any policy based on this idea is really based on an opinion, not on facts. It may be the opinion of the majority and this opinion may even become law, but neither can prove diversity to be good in itself so that neither can justify a policy relying on diversity as intrinsic good.

Furthermore, since it is impossible to prove that one kind of diversity or another is intrinsically good, the choice of scope is arbitrary, a personal belief. Yet, if one does not know what kind of diversity is intrinsically good (if any) one cannot know what kind of diversity to promote (if any). Any choice of policy would have to be the result of the bargaining between different viewpoints. Obviously what is supposed to be intrinsically good cannot logically be the result of a political compromise. Hence, no consensus can be reached for a policy based on diversity as intrinsic good (if there is a consensus then the consensual form of diversity is not intrinsically good): no such policy can concretely exist.

One can also wonder how it is possible to agree that diversity is good and important without agreeing on what diversity is. If a Briton and an American both say ‘I like chips,’ do they agree? No, because ‘chips’ would not have the same meaning for the two of them. The agreement is a semantic illusion: they refer to different things for which they simply happen to use the same word. Likewise, without an agreement on the scope of diversity, any agreement that ‘diversity’ is good is vacuous.

### III. DIVERSITY AS INSTRUMENTAL GOOD

#### Introducing a new view of diversity as good

What we saw in the previous section is not that diversity cannot be good but rather that *intrinsic* goodness is too stringent a goal. In the present section, I introduce a different conception of diversity as good, which avoids the flaws of intrinsic good.

One says that diversity is good as a means (instrumental good) if it is conducive to something good. For instance, “in *Regents of the University of California v. Bakke*,<sup>5</sup> the Supreme Court’s closely divided 1978 decision upholding a limited form of affirmative admissions policy, Justice Lewis Powell, who cast the deciding vote, recognized only one legitimate justification for considering race as a factor in a multidimensional process of selecting students—that diverse student bodies produce better education and more stimulating campus communities.”<sup>3</sup> Another example is that of a racially diverse police, which “could develop a better relationship with the community and thereby do a more effective job of maintaining law and order than a force composed only of white officers.”<sup>6</sup> In the case of engineering, it is argued that a greater proportion of women would be good because of the greater variety of designs which more diverse teams could invent.<sup>12–15</sup> Likewise, “diversity in the community of scientists, because it increases the disparity of viewpoints from which hypotheses are derived and tested, is necessary both for discovering truth and avoiding error.”<sup>11</sup>

#### Is diversity good and important?

Saying that diversity is intrinsically good makes a statement about what *is* good. Conversely, in the case of instrumental good, the good is independent of diversity: one can agree on what is good without making any claim related to diversity. There are then two separate questions: ‘what is good?’ and ‘does diversity contribute to it?’. In engineering, a well designed product is good. To establish whether mixed groups lead to this good, one can compare the performances of all-male, all-female, and mixed groups. With sufficient data one could conclude beyond reasonable doubt whether diversity has good and important consequences (of course one must be careful to account for both positive and negative effects, both short- and long-term, both local and global). A statement such as “ASEE believes that diversity enriches the educational experience and improves the practice of engineering”<sup>20</sup> is thus meaningless: this should not be a matter of belief but of fact. Note: That sexual diversity merely correlates with something genuinely good is not an issue here since one makes no claim that diversity is intrinsically good.

Anybody denying that diversity is good as means would then reject facts (assuming that diversity has been empirically shown to be conducive to good results). With diversity as intrinsic good no proof can exist, so that denying that diversity is good just means not holding a certain opinion. Are opponents to diversity-based policies objectively wrong? Or do they simply have a different opinion? This cannot be answered until one has made clear in what sense diversity is supposed to be good.

#### Diversity and ethics

If diversity is good because it has good consequences, it is not universal: it is not diversity in general but some form of diversity that is good. Exactly what kind of diversity is good must be determined on a case-by-case basis. It is important to notice that diversity is not necessarily an ethical concept then: if more diversity leads to more money then diversity is a business concept for example. Diversity is ethical in nature only if it leads to a good which is itself of an ethical nature.

An important consequence is that diversity cannot be expected to receive a wide support. Indeed, if diversity is ethically good then anybody could be expected to contribute to increasing it, but if diversity is only a matter of making more money for a given company then people outside the company have no reason to try to increase diversity in this company. If one cannot show that diversity is a matter of ethics, its support will be very limited: only those who benefit directly have a reason to contribute. The question is then whether the outcome of diversity is valuable to society as a whole. This is why proponents of affirmative action strive to show that it benefits both blacks and whites: the whole population (and the courts) could not be expected to support it if it were good only for a minority.

## The scope of diversity

Many things can contribute to diversity: “The diversity that furthers a compelling state interest encompasses a far broader array of qualifications and characteristics of which racial and ethnic origin is but a single though important element. Petitioner’s special admissions program, focused *solely* on ethnic diversity, would hinder rather than further attainment of genuine diversity.”<sup>5</sup> Consequently, many contributions should be taken into account. But not every form of diversity is necessarily conducive to the good, so that studies are needed to determine—in every particular situation—which ones are. If one then knows that a certain kind of people would be good for engineering, one may seek to increase their enrollment rather than that of other categories for which no benefit is *known*. Yet, what one knows depends on what one wants to know, so we favor a category because we decided to find out whether we should. What seemed neutral (favoring categories objectively conducive to the good) may in fact be dependent on human choices. This kind of procedure “is challenged through being somewhat circular in nature. That is, unless an attribute had already been considered important to measure, then it is only by accident that relevant data would exist.”<sup>9</sup>

Moreover, one “must explain why, if we are obligated or permitted to discriminate in favor of minorities and women when doing so would maximize utility [i.e. good consequences], we are not similarly obligated or permitted to discriminate *against* the members of these groups when doing *that* would maximize utility”<sup>7</sup> (emphasis original). In other words diversity as good as means is a double-edged sword: less diversity may be better in some cases.

## IV. OTHER ACCEPTIONS OF DIVERSITY

In the previous sections, I mentioned that some arguments take diversity to be an intrinsic good or conducive to the good. In this section I present four other ways to interpret diversity.

### Descriptive diversity

Diversity is generally understood (implicitly) as a ‘thick concept,’ i.e. it bundles a fact and a judgment of this fact.<sup>33</sup> Yet diversity may also be seen as simply descriptive. One can for example say that, if this state has 3% of blacks and that state 30%, the latter is more diverse. One can mention this greater diversity as a fact, without taking it to be right or wrong. Descriptive diversity is not sufficient for action. Three steps are necessary to decide to act: (i) learning about a fact in the external world, (ii) making a judgment on this neutral and objective fact that we know, and (iii) deciding whether and how to act based on this judgment. Descriptive diversity is only step i (the other five acceptions of diversity are meant to be judgments, step ii): it is necessary but not sufficient. Note that step iii—would the goodness of diversity justify policies to increase diversity?—is mostly beyond the scope of the present article.

### Diversity as symptom

Lack of diversity may not be wrong in itself, neither does it necessarily lead to anything bad. Rather, it may be a hint that something is not right, a symptom. Unlike when diversity is considered good, one does not purport to actively increase diversity: rather, the argument here is that diversity should not be artificially decreased (for instance by discrimination). One should notice that increasing diversity is not *ipso facto* good in this case: getting rid of the symptom is not the same as solving the problem. For instance, arbitrarily expelling random white college students would increase diversity but would be utterly absurd. (Of course if the symptom is also bad in itself then it should be addressed directly, but this is not because it is a symptom.) Moreover, lack of diversity is just a hint, not a proof. It is therefore necessary to look—beyond the symptom—at the good itself. In fact, as soon as one notices a problem, one should give up thinking in terms of diversity (i.e. of symptom) to focus on solving the actual problem. It is quite easy to lose focus and concentrate on a mere symptom.

Of course, what causes this lack of diversity will have to be determined on a case-by-case basis. Whether it is wrong and should be removed also depends on the specific circumstances—for instance

the lack of diversity in terms of height amongst basketball players and jockeys comes from a genuine advantage for the tall and the short respectively (rather than from arbitrary discrimination). This determination is beyond the scope of this paper, which looks at arguments based on diversity rather than tries to find out what the possible causes of lack of diversity are. In any case this has to be an empirical endeavor, not a theoretical one.

### Diversity as a side effect

According to Cohen<sup>10</sup>, “seeking diversity in the medical professions is imperative to achieve just and equitable access to rewarding careers in the medical professions.” Here the core of the argument is “just and equitable access,” not diversity. Diversity is merely a side effect in this case. Making this an argument in favor of diversity is misleading. Of course, due to the popularity of diversity (“it has become one of the most pious of the pieties of our age that the United States is a society of enormous cultural diversity”),<sup>28</sup> (p. 114) basing an argument on ‘diversity’ may seem to give it weight. Nevertheless, for the sake of clarity one should talk of increasing diversity only when the justifications are genuinely based on diversity, not just on something more or less correlated with it. That the reference to diversity is spurious does not mean that the argument is invalid; simply it is not an argument in favor of diversity.

### A craving for symmetry

Diversity is often construed as the idea that any subset of the population should be similar to the overall population: a group representing, say, 20% of the overall population must have 20% of representatives in board rooms, higher education, science, etc. But one should then demand that shorter people be more numerous in basketball teams and that there be more anorexic sumo wrestlers. Naturally, one will retort that in these cases height and weight are important so that the tall and the heavy are objectively better, whereas white men are not necessarily better politicians or executives. This means that whether the proportions in a given occupation should be the same as those in the overall population depends on the exact circumstances, i.e. it is an empirical question rather than a matter of intrinsic good. But then, this is not a new idea, it is simply the ‘diversity as symptom’ view already mentioned. Moreover it is highly unlikely that the outcome of this empirical inquiry be that there should be the same proportion as in the overall population. Overall, it is quite difficult to understand in what the same proportion in a specific context as in the overall population is supposed to be good in itself; it rather seems a craving for symmetry.

Some argue that a ‘critical mass’ is necessary for minority students not to feel isolated. Yet, “the need for a critical mass will be used as the justification for fashioning a new generation of affirmative action policies within which bottom line numbers will matter a very great deal,”<sup>4</sup> (p. 20) i.e. to promote symmetry. Moreover such an argument has been offered for affirmative action (e.g. in favor of native Americans) as well as for women in science and engineering. But if there is a critical mass for both, they will be vastly different. If the critical mass were under a percent (as it would probably be for native Americans) then female enrollment in scientific departments would be far above it already and women could not use this argument. Quite ironically the main opponents to the critical mass theory will thus be proponents of critical mass in a different context: they would fight over the setting of the critical mass like others fight over the setting of the thermostat. One could of course say that the magnitude of the critical mass should be different because the situation is different. How to show that the critical mass for native Americans is one hundredth of that for women? The concept of critical mass is completely different from the idea of the same proportion as in the overall population, so that it is very unlikely that the magnitude of the critical mass turn out to be exactly the proportion of that group in the overall population.

## V. AN EXAMPLE — FEMALE ENROLLMENT IN SCIENCE AND ENGINEERING

The six acceptions of diversity I identified (summed up in Table I) can be found in the literature arguing for a greater female enrollment in science and engineering — “one of the greatest challenges

conception of diversity	relation to the good	factual	specific	decisive	ethical	drawback(s)
descriptive	none	yes	yes	no	no	one cannot act upon it
symmetry	mistaken	no	no	by mistake	no	mistaken
good in itself	is	no	no	no	yes	mere opinion; inapplicable
good as means	causes	yes	yes	yes	not in all cases	needs case-by-case proofs; may have limited support
symptom	caused	yes	yes	indirectly	indirectly	indirect
side effect	indirect	yes	yes	indirectly	indirectly	misleading

TABLE I: Summary of properties of different conceptions of diversity. Factual: is a matter of fact (i.e. can be proven true or false empirically). Specific: is this view of diversity different for different cases or is it rather universal? Decisive: allowing to make concrete decisions. Ethical: is ethical in nature.

facing this nation.”<sup>13</sup> As we will see, they are seldom clearly identified, so that what the authors intended to say is often unclear.

### Diversity-based bric-a-brac

“While women make up over 50% of the college-age population in the U.S., they represent a small minority among engineering students.”<sup>16</sup> If this is said from the viewpoint of descriptive diversity, we can only agree that this is a fact. Yet it is clear that allusions to under-representation cannot be meant to be purely descriptive since they are supposed to justify policies to increase female enrollment in scientific fields. And, unlike what Baum<sup>17</sup> believes (“the numbers speak for themselves, demonstrating a significant problem in recruiting and retaining women”), a description cannot on its own justify action. Clearly there must be an implicit intermediate step, which justifies diversity-based policies.

Authors may value “diversity for its own sake,”<sup>15</sup> yet few actually explicitly say so. Or they may crave for symmetry, like Lane<sup>13</sup> who talks of “a workforce for the global economy that reflects our great diversity.” Chubin *et al.*<sup>15</sup> write that engineering “must narrow the gap between practitioners on the one hand, and their clientele on the other” but also that “diversity for its own sake may speak to morality and fairness” and that diversity is “an enabler that makes teams more creative.” So they invoke diversity as intrinsic good, as instrumental good, and as symptom and they wish for symmetry. Four different conceptions of diversity, no less! Anderson and Northwood<sup>19</sup> want to “increase diversity in engineering” (so says their title) but never explain why diversity should be increased (they use the word ‘diversity’ a grand total of twice). Gates<sup>21</sup> claims that “institutions that award fewer than about 40% of bachelor’s degrees [in physics] to women should be actively investigating to find out why” but does not explain the choice of this arbitrary number.

### Instrumental diversity

Some argue with Wulf<sup>14</sup> that more women in engineering would be good because of the greater variety of designs which more diverse teams could invent. This is a valid argument provided that (i) one establishes empirically that more diverse engineering teams indeed perform better, (ii) this improvement will benefit society as a whole rather than just some technological companies (otherwise one would have no reason to contribute to this increase in diversity, as already pointed out), and (iii) any other group that can contribute as much as women is treated in the same way. Wise and Tschirhart<sup>25</sup> found that “the literature [they] uncovered was very weak in all three dimensions of research quality [reliability, generalizability, and validity],” so that it is not clear whether condition i is fulfilled. Lefevre<sup>11</sup> argues that condition ii holds in the case of scientific research but other authors do not notice the importance of this question. Nobody seems to address condition iii in the context of science and engineering (some do for affirmative action, e.g. Sher<sup>7</sup>, as aforequoted).

According to Gurin *et al.*<sup>2</sup> “students who interact with diverse students in classrooms and in the broad campus environment will be more motivated and better able to participate in a heterogeneous

and complex society.” This means that if a heterogeneous (i.e. diverse) society is good, then diversity in college is good. But this begs the question: it shows that diversity is good (in college) assuming that diversity is good (in general). (One may reply that the diversity of the population is a fact and that students will have to deal with it, so universities should help prepare them. But then a few decades ago U.S. universities should have prepared their students to live in a segregated world, so that segregation in higher education was justified.) Even though it seems to hold diversity to be an instrumental good, this argument really assumes that it is intrinsically good.

#### **Lack of diversity as symptom**

It is often argued that the low female enrollment in engineering is a symptom of social pressure. When “a lot of people argue for diversity in terms of fairness,”<sup>14</sup> they likely interpret lack of diversity as a symptom of lack of fairness. Yet many authors nevertheless talk of women as under-represented, indicating that they would expect women to make up 50% of engineers, which is simply wishing for symmetry. Instead, by ‘under-represented’ one could mean that there are fewer women in science and engineering than there would be without social biases, then one is indeed arguing that lack of diversity is a symptom of something bad.<sup>18</sup> But this kind of under-representation cannot be measured: as I said earlier, as soon as we think that, through a lack of diversity, we identified something bad, we should stop talking of the symptom and focus on the actual source of the problem (in this case, biases). Moreover one should make sure that lack of diversity as symptom—which can be a valid argument—is not mistaken for an irrational longing for symmetry. Saying that “we should of course seek to rid any biases”<sup>18</sup> is very different from saying that there should be 50% of women in scientific disciplines.

#### **Diversity as side effect**

A common argument is that technology plays an ever-increasing role in society and economy, so that the number of engineering graduates must increase, and women are a great potential source of engineers.<sup>13–17</sup> Obviously this argument is not in favor of diversity itself: it aims at increasing the total number of engineers rather than change the composition of the engineering student body. The latter may be altered in the process (for instance if the total number of engineering students increases mostly through the enrollment of more women), but this is only a side effect.

### **VI. CONCLUSION**

Since many different concepts have been called ‘diversity,’ one must be careful when invoking diversity not to ring a homonym. This is of the utmost importance since some of these views are mistaken and cannot justify any policy. We saw that diversity may be a neutral description; but this is insufficient to act. The idea that there should be the same representation in a specific context as in the overall population is groundless. One cannot prove that diversity is good in itself. In fact, I showed that sexual and racial diversities are not intrinsically good. Moreover, there cannot concretely exist policies based on diversity as intrinsic good. On the other hand, diversity as instrumental good can be evaluated empirically; but this must be done separately in every context. Diversity as instrumental good can give rise to precise policies, but—since it is not intrinsically ethical—there is not necessarily a reason why these policies should be widely supported. While diversity as symptom and as side effect can justify actions, these arguments are not actually about diversity so that one should not think in terms of diversity but instead focus on what lack of diversity is a symptom of or on the good that correlates with diversity.

Taking the example of female enrollment in science and engineering, and interpreting the various arguments found in the literature in light of this polysemy, we saw that most authors use ‘diversity’ as a buzzword (e.g. “leverage the full potential of our nation’s diversity”)<sup>12</sup> rather than as a concept—using this sacred cow as a large shield against refutation. Most authors mention ‘diversity’ without ever explaining in what it is supposed to be good and why one should try to promote it (the exception being the argument of improved designs). It does not seem that they genuinely try to justify the policies they



advocate: they provide rationalizations rather than genuine justifications. © Mathieu Bouville, 2007

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\* Electronic address: m-bouville@imre.a-star.edu.sg

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