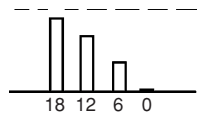
Meeting Need

NICOLE HASSOUN
Carnegie Mellon University

This article considers the question 'How should institutions enable people to meet their needs in situations where there is no guarantee that all needs can be met?' After considering and rejecting several simple principles for meeting needs, it suggests a new *effectiveness* principle that (1) gives greater weight to the needs of the less well off and (2) gives weight to enabling a greater number of people to meet their needs. The effectiveness principle has some advantage over the main competitors including a principle suggested by David Miller in *Principles of Social Justice*. Miller argues that his principle accounts for the existing data on individuals' intuitions about meeting needs. The effectiveness principle better accounts for this data. Furthermore, this article presents a new experiment on intuitions about meeting need that is consistent with the effectiveness principle but not Miller's principle.

1. INTRODUCTION

Imagine that you work for an aid agency helping people secure vitamin supplements from the limited stock available. Suppose that you have to choose how to distribute 20 milligrams of vitamin among four people to help them avoid risk of illness caused by vitamin-deprivation. If a person does not end up with a total of 20 milligrams that person will have some risk of serious illness. Suppose you know that the more milligrams a person has the less likely that person is to get sick and that having even a single milligram will lower a person's risk of disease. You are also able to figure out how much vitamin each person is already receiving. So, after doing a few calculations, you create the diagram below illustrating how many milligrams each person already has and needs.



Each rectangle represents a person. The dotted line denotes the level at which people can meet their needs – *the needs threshold*. The height of each rectangle shows how close a person comes to being able to meet their needs. The first person has 18 milligrams, so needs 2 milligrams to get enough vitamin. The second person has 12 milligrams, so needs 8 milligrams to get enough vitamin. The third person has 6 milligrams, so needs 14 milligrams to get enough vitamin. The last person has no vitamin, so needs 20 milligrams to get enough vitamin. What should you do if you cannot enable everyone to meet their needs?

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There are many things you might take into account in deciding what to do. You might, for instance, try to maximize efficiency in helping people meet needs, help all equally, or aid the least well off. In the example above, for instance, it might be most efficient to help whomever you come across first. You might help all equally by helping each person secure an equal amount of vitamin. You might aid the least well off by using all available vitamins to help the person who needs 20 milligrams.

In different contexts, such principles might suggest different courses of action. In some situations, they might lead institutions (and those in institutional roles) to prioritize emergency aid over long-term development assistance, health interventions over agricultural support, or education over shelter. Alternately, these or other principles might lead institutions to conditionalize aid to countries on their adopting good economic policies or to aid individuals on the basis of how many disability adjusted life years they can secure.

This article considers the question 'How should institutions (and those in institutional roles) enable people to meet their needs in situations where there is no guarantee that all needs can be met?' It starts by considering several simple principles for enabling people to meet needs set out in David Miller's *Principles of Social Justice*. Like Miller, it rejects these simple principles. But, this inquiry helps justify an alternative principle that (1) gives greater weight to the needs of the less well off and (2) gives weight to enabling a greater number of people to meet their needs. This *effectiveness principle* does not provide an account of the appropriate balance between these two objectives. Nor does it explain how institutions might address conflicts between enabling people to meet their needs and other significant moral imperatives. The effectiveness principle does, however, provide some practical guidance. Furthermore, it has some advantages over the main competitors including a principle Miller advances. Miller argues that his principle accounts for the existing data on individuals' intuitions about meeting needs. The effectiveness principle better accounts for this data. This article also presents a new experiment on intuitions about meeting need. This experiment shows that people do not accept any of the traditional principles for meeting needs including Miller's principle. The new data suggests, however, that many people accept something like the effectiveness principle. Let us start by considering a few preliminaries.

2. PRELIMINARIES

This article does not distinguish between the different things people might need. People might, for instance, need resources, opportunities,

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whatever fulfills their preferences, or welfare. Rather, it talks generally about units of *necessary goods* and corresponding *units of need*. One might, for instance, define units of needs (and necessary goods) using a metric on the ability to secure some minimal amount of welfare. If one US dollar a day or 3,000 calories a week allowed a person to secure an equal amount of welfare one might, then, specify that one US dollar and 3,000 calories are equivalent to one unit of necessary good for that person. So, if that person needed two US dollars a day or 6,000 calories a week, she would have two units of need.

Individuals vary in their ability to make use of necessary goods because of factors like age, sex, and health status. Institutions should take these differences in ability into account. Setting these qualifications aside, this article supposes that a given quantity of necessary goods will alleviate an approximately equal amount of need for all people (assuming that people start out with similar needs). This assumption allows a metric on needs and necessary goods to be quite general. Both necessary goods and individuals' needs become commensurable. So, suppose institutions are concerned to help people secure food, money, and educational opportunities. They will know how much need is satisfied by helping someone secure a particular quantity of food vs. enabling another to secure a particular educational opportunity or amount of money. It might, for instance, satisfy as much need to enable 10 children to attend high school as to enable a single child to secure food and water for a year.

The Proportionality Principle

Keeping the above preliminaries in mind, consider one simple principle institutions might use for fulfilling need – the *proportionality principle*. The proportionality principle tells institutions to help individuals in proportion to their need. Suppose that an institution is trying to enable two people – *Tamil* and *Effe* – to meet their needs. Tamil has one unit of need. Effe has 1.5 units of need. According to the proportionality principle, the institution should enable Effe to secure 1.5 times the amount it enables Tamil to secure. If the institution has one unit to distribute, it would enable Tamil to secure enough resources to alleviate .4 units of her need and Effe to secure enough resources to alleviate .6 units of her need. The ratio .4:.6 is 1:1.5. This distribution helps Tamil and Effe secure necessary goods in proportion to their need.

To make this concrete, suppose that Tamil needs an extra bag of rice every week and Effe needs a bag and a half. Suppose there is one bag to distribute. The proportionality principle tells institutions to help Tamil secure two-fifths of the bag and Effe to secure three-fifths. This distribution would be in proportion to need since 2/5:3/5 is .4:.6 or 1:1.5.

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Miller believes that that the proportionality principle does not give enough weight to Effe's greater need. He believes that the needs of the less well off merit *greater than proportional weight*. Let us call any principle that gives more than proportional weight to the needs of the less well off *progressive*. Miller does not offer an explicit justification for adopting a progressive principle over the proportionality principle. He might, however, object to the proportionality principle because he is concerned about equalizing unmet need. He might think that the following consequence of the proportionality principle is problematic. If necessary goods are always used to help people in proportion to their need, the least well off will always need more than the better off until everyone's needs are met; there will always be inequality in remaining needs. Miller's problem with the proportionality principle may be that it does not help equalize unmet need.

I will argue below that a concern for equality in meeting needs is misplaced; this concern leads Miller awry. In fact, I do not know of any defensible reason to prefer the progressive principle Miller favors to the proportionality principle. Both the progressive principle and the proportionality principles are, however, in the subcategory of *prioritarian* principles and it is possible to make a case for a prioritarian principle.

A *prioritarian* principle gives greater weight to helping the less well off than it gives to helping the better off. It is possible to defend a prioritarian principle as follows. Consider this psychological fact: normally, a given quantity of goods brings more utility to a person who has less of those goods than to one who has more of those goods.[1] This observation holds even for those in need. People generally prefer to have a unit of necessary good more when they have less of that good than when they have more of that good. On a subjective theory of need (on which people's needs are determined solely by reference to their subjective states) we might say that, normally, more need is fulfilled by enabling the less well off to secure necessary goods.[2] Furthermore, one might argue that the best explanation of why people generally prefer to have a unit of necessary good more when they have less of that good than when they have more of that good is this: giving a person a unit of necessary good usually satisfies more objective need when that person has less of that good. So, even on an objective theory of need (on which

[1] See: J. Baron and J. Greene, 'Intuitions about Declining Marginal Utility', *Journal of Behavioral Decision Making* 14 (2000), pp. 243–55. Also see: T. Griffith, 'Progressive Taxation and Happiness', *Boston College Law Review* 45 (2004), pp. 1–36. Finally, see: B. Frey and A. Stutzer, 'Can Economists Learn from Happiness Research?', *Journal of Economic Literature* 40 (2002), pp. 402–35.

[2] This is most plausible if utility is understood as preference satisfaction and people just need what satisfies their most important preferences.

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people's needs are not determined solely by reference to their subjective states), it is plausible that more need is fulfilled by helping the less well off secure necessary goods.

Even if preferences do not generally track the goodness of fulfilling objective need, the following conclusion is independently plausible: it is often better to enable the less well off to secure necessary goods than to enable the better off do so. This is plausible even if everyone has unmet needs (on an objective need theory). To see why, suppose that an institution must distribute water to those who live in a land ravaged by drought. Everyone has an objective need for a few liters of water every week. Suppose an institution has a liter to distribute and can either help someone who already has a liter or someone who has no water. What should it do? Unless people need two liters to survive it is probably better to help someone who has no water. Barring threshold effects it is, normally, better to give more weight to alleviating the needs of the less well off.[3]

Exactly how much weight greater needs should get is an open question. The above argument suggests, normally, giving enough weight to those with greater needs to compensate for the effects of declining marginal need-satisfaction. The marginal need-satisfaction of a resource for a person is the difference an additional unit of necessary goods will make to how much need a person has. So saying that there is declining marginal need satisfaction means this: the marginal need satisfaction a person gets from a unit of necessary good declines the more units of necessary good the person already has.

Sometimes, however, institutions may be justified in giving even more weight to helping the less well off than the amount that would maximize need fulfillment (taking declining marginal need satisfaction into account). Suppose, for instance, that an institution has to decide whether to help a sick child secure some pain relieving medication or help a healthy child secure better nutrition.[4] Suppose further that both of these actions are equally good with respect to need fulfillment. Which should the institution do? In informal surveys, I have found that people believe that the institution should aid the sick child. Perhaps it is even better to help the less well off than it appears to be given the effects of

[3] For this argument to go through, we must be able to make meaningful comparisons of need fulfillment between persons. We have simply assumed for the purposes of this article that this is possible. For one way of doing this see: R. M. Hare, *Moral Thinking* (Oxford, 1981). Recent work on theory of mind may add to Hare's account by helping to explicate the process by which such comparisons are made. See: Alvin Goldman, 'The Psychology of Folk Psychology', *Behavioral and Brain Sciences*, 16 (1993), pp. 15–28. Also see: A. Gopnik and H. Wellman, 'Why the Child's Theory of Mind Really is a Theory', *Folk Psychology*, ed. M. Davies and T. Stone (Oxford, 1995).

[4] On this also see: T. Nagel, *Equality and Partiality* (Oxford, 2001).

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declining marginal need-fulfillment. So institutions may be justified in adopting some sort of progressive principle.

Strict priority

The version of the progressive principle Miller considers after rejecting the proportionality principle gives *absolute* priority to meeting the needs of the least well off. Only when everyone needs an equal amount does this *strict priority* principle require helping everyone. Suppose, again, that Effe has 1.5 units of need and Tamil has one unit of need. The strict priority principle tells institutions to distribute goods to Effe until she is no longer the least well off. Only when Effe and Tamil both need one unit is it okay to split the rest between them equally.

Again, to make this concrete, suppose an institution is distributing rice. Suppose, once more, that there is one bag of rice to distribute. Effe needs 1.5 bags and Tamil needs one bag. In this case, the institution should help Effe secure one-half a bag and then split the rest between the two. Effe gets three-fourths of a bag and Tamil gets one-quarter of a bag. They are both left needing three-quarters of a bag.

Unfortunately, the strict priority principle is implausible. There are two reasons for this. First, the evidence marshaled in support of a prioritarian principle does not recommend a *strict* prioritarian principle. At most, it supports a moderately progressive prioritarian principle that gives less weight to the needs of the least well off than the strict priority principle.[5] Recall the intuitions described above in favor of prioritarianism. If an institution has to decide whether to help a sick child secure some pain relieving medication or a healthy child secure better nutrition, most people think it should aid the sick one even if both of these actions are equally good with respect to need fulfillment. Most people, however, are a bit ambivalent on the point. They do not think that institutions should aid the sick child come what may. The needs of the healthy child have some weight and can trump the needs of the sick child at some point even if the sick child is never as well off as the healthy one.

Furthermore, on the strict priority principle, it is not acceptable to fulfill the needs of anyone who is not at least tied for the position of least well off.[6] In many situations this is unreasonable. In times of disaster, for instance, the policy of triage may be justified. Triage requires helping those who have great needs but not those who need the most first (even if the neediest could be helped).

[5] Griffith, 'Progressive Taxation and Happiness'; Frey and Stutzer, 'Can Economists Learn from Happiness Research?'.

[6] D. Miller, *Principles of Social Justice* (Cambridge, Mass., 1999).

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Triage is compatible with giving more weight to greater needs. Sometimes, even taking into account the greater needs of the least well off, it is better to help those who are not least well off. There are at least two cases in which triage might be justified.

First, triage may alleviate a greater amount of weighted need than helping the least well off alleviates. Due to institutional constraints, for instance, there may be no way to alleviate as much weighted need by helping the least well off. Suppose that there are 12 people in need. One person has 10 units of need; the others have only one unit of need each. There are two options. First, an institution might help the least well off person secure one unit of necessary good. Alternately, it might help the other 11 people secure one unit of necessary good each. Perhaps it is *so* costly to help the least well off person that it is impossible to help the least well off and the others as well. It might be the case that more weighted need is alleviated if the institution helps 11 people on a prioritarian principle. This is so if, for instance, the weight given to fulfilling a unit of need for a person equals the number of units the person needs before receiving the unit. Then, helping the person who needs 10 units secure one unit yields a 'score' of 10. Helping the other 11 people secure one unit each yields a score of 11 (1*1 for each person). Helping the 11 yields a higher score; doing so alleviates more weighted need than helping the least well off. This is so even though alleviating a unit of need for the least well off person is 10 times as good as alleviating a unit of need for any of the other people. But even if one does not believe that this weighting schema gives enough weight to the least well off, all weighting schemas will support triage in some cases. Sometimes institutions can help 1,000 or even 1,000,000 with the resources they would otherwise use to help the least well off.

Second, triage may be acceptable even if institutions can alleviate an equal (or even greater) amount of weighted need by helping the least well off. Intuitively, it may be best not to help the least well off even when the greatest amount of weighted need will be alleviated by doing so. This does not mean that the greater needs of the least well off are not given sufficient weight. It just means that fulfilling the greatest amount of weighted need is not all that matters. If institutions can help a much greater number by ignoring the needs of the least well off, it may sometimes be acceptable for them to help the better off even though they can alleviate more need by helping the worse off.

The prioritarian does not share this intuition. She believes it is only better to help a greater number of people than to help the least well off when this alleviates the most weighted need. There are two ways the prioritarian may object to any case that is supposed to show that triage can be acceptable when it does not alleviate the most weighted need. First, she may object to the weighting schema used in the case

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because she thinks it gives too much weight to helping the less well off. Second, she may accept the weighting schema but deny the intuition that triage is acceptable in the case.

It is, thus, easier to show that prioritarianism is unintuitive if the prioritarian agrees to some particular weighting schema first (it does not matter which one). We can then show that this weighting schema will, in some cases, lead to quite unintuitive results; any weighting schema will suggest that an arbitrarily large number of the better off's (arbitrarily large) needs should, in some cases, be ignored to help the least well off. Let us suppose then that the prioritarian thinks that institutions should distribute in proportion to need. Suppose, further, that the prioritarian weights the amount given to alleviating a unit of each person's need by the amount that person starts off needing as described above. So, alleviating a unit of need for a person who starts out needing three units is three times as good as alleviating a unit of need for a person who starts out needing only one unit. The means of constructing counter-examples to prioritarianism based on triage will become clear via the examples below.

To motivate the weighting schema described above consider a simple case: Suppose that we must choose how to distribute two units of necessary good between 10 people. Suppose that Tamil is the worst off and needs three units of necessary good, while the other people only need one unit each. In this case, alleviating the first unit of Tamil's need yields a score of three, alleviating the second unit of Tamil's need yields a score of two, and alleviating the last unit of Tamil's need yields a score of one. Alleviating a unit of any other person's need yields a score of one. So, it is just as good to alleviate one unit of Tamil's need as to alleviate three others' needs. It is just as good to alleviate all of Tamil's need as it is to alleviate six others' needs. Enabling Tamil to secure a single unit would be better than helping two other people secure a single unit each. Supposing the prioritarian finds this intuitive enough, we can show that it has unintuitive consequences in some cases. This weighting schema might suggest that an arbitrarily large number of the better off's (arbitrarily large) needs should be ignored to help the least well off. Consider the following example. Suppose that an institution must choose how to distribute 100 units of necessary good between 200 people. Suppose that Tamil is the worst off and needs 100 units of necessary good, the other people only need one unit. Weighting the amount given to each person by that person's need would tell us that alleviating the first unit of Tamil's need is 100 times as good as alleviating any other person's need ($100^*1 = 100(1^*1)$). Similarly, alleviating the second unit of Tamil's need would be 99 times as good as alleviating any other person's need. Helping Tamil secure a single unit, however, would be better than helping 99 other people secure a single

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unit each. If the prioritarian does not think this is unintuitive, we can create similar cases where this weighting schema suggests neglecting the needs of thousands or millions to help a single (very poor) person. Simply by multiplying the needs in the example above by any constant we can also make the amount that the better off need in the example arbitrarily large. Triage is sometimes required even when it does not alleviate the greatest amount of weighted need.

Perhaps the prioritarian could respond that this weighting schema gives too much weight to the needs of the least well off; she might think that the needs of each should be weighted by only a fraction of their need. Such alternative weighting schemas, however, will lead to equally unintuitive cases. (I leave it to the skeptical reader to experiment with constructing such cases along the lines above.) In fact, I can think of no straightforward weighting schema that is not subject to such counter-examples where, intuitively, it is better to meet the needs of a greater number than to maximize the amount of weighted need fulfillment.

So far we have adopted the simplifying assumption that a unit of necessary good fulfills an approximately equal amount of need for all people (assuming that these people start out with similar needs). The intuition that triage is sometimes required is strengthened, however, if some people are inefficient users of necessary goods. Suppose, for instance, an institution must decide how to distribute 100 units of necessary goods between a hundred people. Suppose that one person needs 10 units and the other 99 need five units each. It might seem reasonable to help everyone just a little but to help the least well off secure more. Suppose we specify, however, that to alleviate one unit of need for the least well it would take 100 units of necessary goods while one unit of necessary good will alleviate one unit of need for someone who is better off. It, then, seems much more reasonable to help only the better off.

Triage might be justified in many ways. A good justification will leave open the possibility that triage may be justified even if it does not alleviate the greatest amount of weighted needs. The principle I prefer is this: institutions should try to help *as many people as possible* meet their needs.[7] In some situations a concern for helping as many people as possible may outweigh a concern for helping the least well off.

The principle that institutions should try to help as many people as possible meet their needs expresses a concern for persons. Institutions

[7] Miller justified this policy in a slightly different way. He said that it is unjust if some are avoidably left worse off than others. If this is the sole method of justifying the intuition, this response leads to a strange consequence: whom we should help can change when new people are added to a situation even if the new people can already meet their needs. This problem will be discussed below.

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should try to help people meet their needs because people merit respect as separate individuals.[8] If persons matter, institutions should not just be concerned about fulfilling as much need as possible; they should be concerned about helping each person. The fact that some have greater needs cannot always trump the fact that there are others in need.

Finally, the fact that the case for triage is stronger where many people have dire needs supports the principle that institutions should try to help as many people as possible meet their needs.[9] It is usually less justifiable to help the least well off when doing so prevents an institution from helping 100 people than when doing so prevents an institution from helping 10 people. *Ceteris paribus*, institutions should try to help *as many people as possible* meet their needs.

There are other principles that might explain why triage is justifiable. It may, for instance, only be better to help a greater number of people in emergency situations. Alternately, helping the greater number may have declining marginal importance. These alternatives are implausible. Even when there is not an emergency, triage may sometimes be required. At least the examples we gave above to motivate these kinds of decisions did not mention emergencies. Furthermore, it is not clear why helping the greater number would have declining marginal importance. At least, the principle that each person merits respect as a separate individual tells against this view.

3. EFFECTIVENESS

If the previous section's arguments are correct, a good principle for meeting need should judge policies by their performance on two criteria. First, how many people they help. Second, their efficacy in alleviating weighted need where more (finite) weight is given to fulfilling the needs of those who are worse off.[10] Let us call the principle that embodies these criteria the *effectiveness principle*. On this principle, a situation is, *ceteris paribus*, better if it contains less weighted need or helps more people.

To apply the effectiveness principle, institutions might follow this procedure: First, rank the possible policies from best to worst according

[8] Accepting this kind of justification does not preclude other moral concerns (e.g. for groups as well as individuals).

[9] Especially if these rules must recognize the equal value of all institutional subjects and treat them appropriately. Though I cannot pursue this line of thought further here, this may help account for Miller's concern for equality.

[10] If more weight is given to the needs of the less well off than would be granted by taking into account the effects of diminishing marginal utility, this part of the principle may be equivalent to what Miller calls a weighted priority principle. No matter how it is cashed out, however, Miller's concern about weighted priority principles applies equally to the effectiveness principle – it does not take into account inequality. This article will address this concern below.

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to how much weighted need they alleviate. Second, rank the possible policies from best to worst according to the number of people they help. Third, for each policy, combine its ranking in terms of how much weighted need it alleviates with its ranking for how many people it helps to yield its final score.[11] Choose fairly between those policies that have the largest score.[12]

Consider how the effectiveness principle will work in the simplest case where each part of the principle has the same implication. Suppose that there are two equally needy people. Suppose that an institution can either help one person secure two units of some good or help each secure one unit. Helping each secure one unit helps as many people as possible. Because the people are equally poor, it is better to alleviate the first unit of a person's need than to alleviate the second unit. So, helping each person secure one unit of necessary good also alleviates the most weighted need. The effectiveness principle, thus, suggests helping each secure one unit.

Now consider a simple case where tradeoffs may be required. Suppose, again, that there are two needy people and that an institution must choose whether to help one person secure two units of necessary good or to help both secure one unit of necessary good. Suppose, however, that one person needs more than the other. In such hard cases, a concern for helping as many people as possible is weighed against a concern for alleviating the most weighted need possible. What the effectiveness principle will suggest depends on the relative importance of the two parts of the principle. If it is better to help the least well off than to help both people, the effectiveness principle will tell institutions to help the less well off; otherwise it will suggest helping both.

We have not specified how much weight each part of the effectiveness principle has. So, one may worry about whether we have made much progress in deciding how to fulfill need. Perhaps the principle provides no practical or theoretical guidance. Perhaps it provides no real advantage over the main competitors.

This worry is not well-founded. The effectiveness principle has some policy implications. Consider how institutions might use the effectiveness principle to evaluate actual policies. Development agencies like Oxfam and the World Bank try to reduce poverty. They have limited resources. Sometimes such programs only try to maximize the number of people helped without taking into account the greater importance of meeting the needs of the least well off. In such cases, the

[11] The ratings can be weighted as well.

[12] Certainly questions about how the relative weights should be set and issues of procedural justice must be addressed to make the principle fully precise but I will not provide this level of precision here. In the abstract, it may be impossible to be more precise. All principles are indeterminate in some ways; no principle can overcome the need for judgment. Other principles may also come into play.

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effectiveness principle will probably suggest altering the programs so that they fulfill more weighted need. It is important to try to help as many people as possible. It is also important to give enough weight to helping those who are worse off.

Or consider what the effectiveness principle says in another realistic example. Suppose an institution has a limited budget for helping people in a particular region secure either vitamin A or vitamin D, or both. Vitamin A deficiency results from malnutrition which, we can suppose, only affects the least well off. Vitamin D can be absorbed from the sun. Suppose that the least well off happen to be farmers who work outside and so have enough vitamin D. Suppose that helping the least well off secure vitamin A maximizes the amount of weighted need the institution alleviates. Suppose helping the relatively better off secure vitamin D helps a greater number of people meet their needs but does not help the least well off. The effectiveness principle tells the institution to help some people secure vitamin A and some secure vitamin D. After all, institutions must give some weight to meeting more weighted need and some to helping a greater number of people. Depending on the relative weights of the considerations, however, different versions of the principle will tell the institution to help people secure more of one vitamin than the other.

We can also eliminate some justifications for particular policies using the effectiveness principle. If, for instance, one believes that free trade is the best way to enable people to meet their needs, one cannot say that this is because the free market will most efficiently fulfill need, that it will help all meet their needs equally, or that it will fulfill the most need for the least well off group. One must argue that the free market strikes an appropriate balance between fulfilling the most weighted need possible and helping the greatest number of people meet their needs.

It would be nice if it were possible to say more about how to resolve conflicts between the two parts of the effectiveness principle. One way of doing so is to figure out what kinds of principles well informed and appropriately impartial people (perhaps placed in something like an original position) would accept.[13] This article will say a bit more about how this project might be carried out below. It might, however, be impossible to say much that is plausible about this issue at a completely general level. Furthermore, the absence of a complete account may not be problematic. We cannot ignore the need for judgment and sensitivity to changing contexts. A little humility may be better than a lot of precision.

[13] J. Rawls, *A Theory of Justice* (Cambridge, MA,, 1971). Also see: D. Braybrooke, *Meeting Needs* (Princeton, 1987).

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So far, we have shown that the effectiveness principle has some advantages over competing principles including those that suggest maximizing need fulfillment, fulfilling everyone's needs equally, the difference principle, the prioritarian principle, and the proportionality principle. None of these competing principles (1) give more weight to the needs of the less well off *and* (2) give weight to helping a greater number of people. The effectiveness principle embodies these desiderata. On the effectiveness principle it is good to try to help as many people as possible meet their needs.[14] It is also good to give more weight to the needs of those who are worse off.

There are, however, other competing principles. In what follows we will, thus, consider one of these competitors: David Miller's principle for need fulfillment. This inquiry is important because Miller's principle is the only alternative to the effectiveness principle that I am aware of designed explicitly as a principle of need satisfaction. It is also the strongest remaining competitor. So, if the problems with Miller's principle cannot be overcome and the effectiveness principle can avoid them, the effectiveness principle should be, tentatively, accepted.

4. MILLER'S PRINCIPLE

Like the effectiveness principle, Miller's principle avoids the problems with the strict priority and proportionality principles. Miller believes, however, that a good principle should embody a commitment to equality in meeting needs. He rejects a principle motivated in a similar way to the effectiveness principle because it does not take inequality into account.

Miller measures equality by taking the sum of the gaps (in resources, preference satisfaction, opportunities, welfare, or whatever) between each pair of individuals in a situation.[15] 'Whichever distribution yields the lowest sum total of difference is judged to be the most equal and therefore, in this context, the fairest'.[16] Miller then adds the total amount of remaining need to this inequality to give a score for need improvement. Lower scores indicate less remaining need and/or inequality – they are better. If we assume, with Miller, that institutions have reason to bring about situations with lower scores, his principle tells institutions how to fulfill needs.

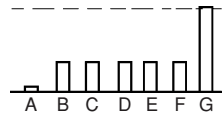
[14] Further consideration is necessary to account for changes in population levels and life spans. The effectiveness principle can still give us a bit of guidance, however, when we do not have enough information about particular individuals to know how long they will live.

[15] See discussion below for alternative ways of construing Miller's principle.

[16] D. Miller, *Principles of Social Justice* (Harvard University Press, 1999). p. 217.

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To see how his principle works, consider the following diagram:

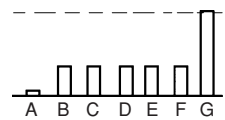


Recall that each rectangle represents a person. The dotted line denotes the level at which people can meet their needs – *the needs threshold*. The height of each rectangle shows how close a person comes to being able to meet their needs. Suppose that all individuals need two units of some necessary goods. Suppose A has two units of need, B, C, D, E and F have one unit of need, and G can meet her needs. There is a gap of one unit between A's level and the level of B-F, a two unit gap between the levels of A and G, and a gap of one unit between the level of B–F and the level of G. Adding these gaps together gives us 12 units total inequality. The remaining need is the sum of the amounts by which A–F fall below the threshold or, in this case, seven. Hence, Miller's principle gives this situation a score of 19.

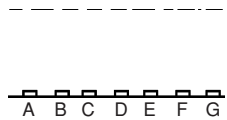
5. PROBLEMS WITH MILLER'S PRINCIPLE

Leveling down

Unfortunately, Miller's principle has some unintuitive consequences. One problem with his principle is that it is subject to the leveling down objection. A principle is subject to the leveling down objection if it entails that equality can be increased by lowering some people's welfare, preference satisfaction, opportunities, or resources even if this benefits no one. To see how Miller's principle is subject to the leveling down objection consider the situation from above:



Recall that Miller's principle gives this situation a score of 19. Now suppose that an institution brings B–G down to A's level.



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There is no inequality in this situation and seven people each need two units. So, the inequality measure of need in this situation is 14. Because 14 is less than 19, bringing B–G down to A's level is a good move on Miller's principle.

Miller recognizes this unintuitive consequence of his principle. He tries to motivate its acceptance with an example. In a fuel shortage, he says, it may be acceptable to throw some fuel away rather than help a few people secure more fuel than the rest.[17]

I do not believe this response will do. Miller's principle might entail that institutions should take necessary goods from the needy or impoverish everyone, even if this benefits no one. This is unacceptable. At least, this is unacceptable for an account of how institutions should *fulfill needs*; *need* cannot be *fulfilled* by reducing the amount that some have when this benefits no one.

Perhaps because Miller does not really want to bite the bullet on this point, he tries to avoid this problem by amending his principle in a few ways. First, he adds a concern for satisfying as many needs as possible to his principle. This may help avoid leveling down in some cases. It does not, however, solve the problem in the case above if we specify that no more need can be satisfied in the original situation.[18] Maybe because he realizes that his first proposal will not allow his principle to avoid the leveling down objection completely, Miller offers another proposal. He suggests using a theory of equality that is not subject to the leveling down objection in calculating inequality. Unfortunately, Miller does not provide such a theory nor explain how we might find one. A good principle for need fulfillment should not tell institutions that it is good to increase the amount some need if this does not decrease the amount others need. I have tried to come up with a theory that avoids leveling down using Larry Temkin's work in *Inequality* but it is not as easy as Miller supposes to find such a theory.[19] Since I cannot prove that it is impossible for Miller's theory to avoid the leveling down problem, however, let us consider another problem with Miller's principle.

Sensitivity to irrelevant factors

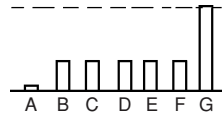
Miller's principle is sensitive to irrelevant factors. Consider an illustration. Once again this is the initial situation:

[17] Miller, *Principles of Social Justice*.

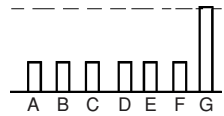
[18] Miller also adds a concern for procedural justice to his theory in hopes of avoiding this sort of problem. Unfortunately, in the examples he gives where procedural justice comes into play it does nothing to help fix the problem.

[19] Please contact the author for further information. Also see: L. Temkin, *Inequality* (Oxford, 1993).

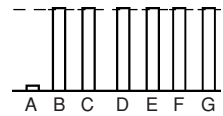
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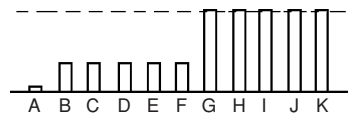
Suppose that an institution can either reduce A's need by one unit or reduce each of B–F's needs by one unit. *Action one* brings A up to the level of B–F. *Action two* brings B–F up to G's level but leaves A at her current level. If the institution does action one, the resulting situation looks like this:



The inequality in this situation is 6. The remaining need is 6. So, Miller's principle gives this situation a score of 12. If the institution does action two, this is the situation:

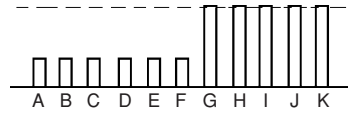


The inequality here is 12. Remaining need is 2. So, the score in this situation is 14. Since 14 is greater than 12, Miller's principle suggests doing action one. When the initial situation is slightly modified, however, Miller's principle returns a different result. Suppose that the initial situation contains extra people H, I, J, and K who are all able to meet their needs. This is the initial situation:

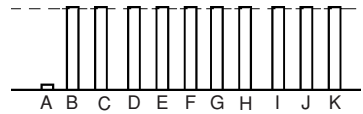


There are 7 units of need in this situation. There are 40 units of inequality. Miller's principle, thus, gives this situation a score of 47. If the institution does action one, reducing A's need by one unit, the resulting situation looks like this:

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Inequality is 30. Remaining need is 6. So, Miller's principle gives this situation a score of 36. If the institution does action two, this is the result:



Inequality is 20. Remaining need is 2. So, the score for this situation is 22. Since 22 is less than 36 Miller's principle requires action two. On Miller's principle, whose needs institutions should meet depends on how many people there are *who are already able to meet their needs*. This is unintuitive.

Miller recognizes this strange consequence of his principle. Hence, he asserts that justice requires considering 'the relative position of everyone falling within the universe of distribution. We should assess not merely the claims of A vis-à-vis B, C, and D, but the claims of each of them against G, H, I, and so on.'[20] Miller believes that justice requires equality and institutions need to take equality into account in meeting needs. He tries to justify this concern for equality before setting out his account. Let us consider whether his justification can compensate for the unintuitive consequences of including this concern in a principle about how to meet need. If there is no reason to believe a good principle for meeting need has to embody a concern for equality, there is reason to accept the effectiveness principle. It avoids the problems we have canvassed for Miller's principle (see Appendix I) as well as the others we have considered.[21]

[20] Miller, *Principles of Social Justice*, p. 219.

[21] Though a good principle for need fulfillment does not need to be egalitarian, it would be good if one who cares about equality could at least accept the principle. This is important since many of those who believe that there is an obligation to enable people to meet their needs hold egalitarian theories. See, for instance: S. Caney, 'Cosmopolitan Justice and Equalizing Opportunities', *Metaphilosophy* 32 (2001), pp. 113–34. Also see: D. Moellendorf, *Cosmopolitan Justice* (Boulder, CO, 2002). One way to reconcile the effectiveness principle with a concern for equality is to give lexical priority to enabling people to meet their needs effectively over reducing inequality.

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Equality

Miller believes that we should aim for reflective equilibrium in moral theorizing; good theories should account for our settled intuitions.[22] He thinks that experimental evidence can get at our settled intuitions. He, thus, provides the results of a few experiments to show that 'people will aim to equalize degrees of unmet need, which means distributing in favor of those in greater need until they are brought up to the same level as others'.[23] Though this article will argue below that the experimental evidence does not support Miller's principle let us first consider Miller's methodology.

It is not clear when appealing to intuitions is appropriate in ethical theory. There are different views on the matter. Some believe that an author need only account for his or her own intuitions.[24] Others only believe that the intuitions of the philosophical community matter. Still others agree with Miller that good theories will rely upon 'folk' intuitions shared by all (or at least those not corrupted by too much philosophical theory). Philosophers should probably be concerned about the intuitions of different people for different purposes.[25] Some philosophers (or most), having thought about certain philosophical issues, may have better intuitions than the philosophically uninitiated on these philosophical topics. It may be obvious to ethicists (but not to others) that accepting a particular proposition on the basis of intuition will require one to accept other propositions that have more unintuitive consequences. Ethicists, for instance, may be less likely than others to say morality is reducible to the law because they realize that this will commit them to the view that slaveholders in the antebellum Southern United States were acting morally. Sometimes, however, it is more plausible that philosophers' intuitions about particular cases have been corrupted by their other theoretical commitments. Those who believe that there are only quiddities, for instance, might not think that there are individuals who can act well or poorly. What intuitions matter probably also depends a bit on what one is trying to show and to whom. If one is involved in a purely philosophical debate on a particular point appealing to philosophers' intuitions on that point may be sufficient. Here we are involved in a much broader debate about how institutions should fulfill need. In the absence of reason to think some people's intuitions matter more than others' it seems reasonable to appeal to

[22] Miller, *Principles of Social Justice*.
[23] Miller, *Principles of Social Justice*, p. 74.
[24] F. Kamm, *Intricate Ethics: Rights, Responsibilities, and Permissible Harm* (Oxford, 2007).
[25] J. Knobe and S. Nichols, 'An Experimental Philosophy Manifesto', *Experimental Philosophy* (Oxford, 2008).

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empirical evidence regarding folk intuitions here. We must just remain open to revising our results if it turns out that some people's intuitions about meeting need are better than others'.

It is worth considering, then, the experimental evidence Miller cites. In one of these experiments, 'subjects were asked to divide a monetary reward between two students who had contributed equally to a common task; one of the students was described as needing extra money to buy books for a course'.[26] The students were described as friendly and like-minded. Some participants suggested that the reward be divided equally between the students. Most participants, however, wanted to give the needy student enough to buy the textbooks before splitting the rest equally.[27]

Unfortunately, it is hard to see how this experiment shows that people care about equality in meeting needs. The evidence seems to support the hypothesis that in some situations people will try to help others meet their needs before distributing unnecessary goods equally. Had the students needed different amounts, it is not clear how participants would have distributed the reward. We need more evidence to justify the kind of connection between need fulfillment and equality that Miller implicitly relies upon.

Another experiment Miller mentions tells us more. Miller reports Norman Frohlich and Joe Oppenheimer's experiment to imitate a Rawlsian original position. Frohlich and Oppenheimer asked participants to choose the rules of remuneration for work that participants then completed. Despite variation between participants, people generally choose to maximize the average income level subject to a floor constraint. These preferences were stable over time. Because most people tried to provide a flat minimum for everyone, Miller concludes that they disregard differential need.[28] Why provide an equal minimal income floor for individuals if people are likely to need different amounts of income?[29] Miller says participants are balancing a concern for giving people their just deserts against a concern for need fulfillment.

Unfortunately, this explanation is not sufficient. The results just show that people are concerned about need, not that 'people will aim to

[26] Miller, *Principles of Social Justice*, p. 74.

[27] Miller, *Principles of Social Justice*.

[28] Miller, *Principles of Social Justice*, pp. 79–81. Also see: N. Frohlich and J. Oppenheimer, *Choosing Justice: An Experimental Approach to Ethical Theory* (Berkeley, 1992).

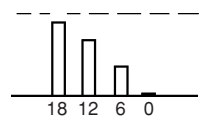
[29] On the other hand, it is not clear that people actually needed anything in the experiment. The participants were not told that people would not be able to meet their needs if they did not get some money. So, I doubt that this experiment tells us much about distribution according to need. In any case, different potential motivating factors were not sufficiently well isolated.

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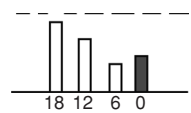
equalize degrees of unmet need'.[30] Miller never justifies this connection between need fulfillment and equality that he implicitly relies upon. One might even make the case that Frohlich and Oppenheimer's experiment shows that most people are not concerned about equality at all. Gillian Brock argues, for instance, that this experiment shows that people only care that everyone has enough to meet their needs.[31]

Even if this is wrong, however, it seems that we need more evidence to come to any solid conclusions about what people care about in meeting needs. Perhaps most people do accept Miller's principle. Maybe most people are completely egalitarian. Maybe they accept some of the simple principles we have rejected. Maybe they even accept the effectiveness principle. Unfortunately, the empirical literature on distributive justice is not too helpful in arbitrating between these different theories. One reason for this is that the literature does not address meeting needs in particular. Most of the experimental data focuses on the difference principle.

To address this problem, I designed a new experiment intended to see what principles appropriately impartial people think institutions should use for meeting needs.[32] Participants were asked the question with which this article started about how to distribute vitamins to four people falling below the 20 milligram line. Recall that this was the initial situation:



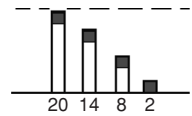
The participants were then asked to rank four possible distributions. Option 1 gave 8 milligrams to the last person (who originally had zero milligrams and needed 20). This was the result of this distribution:



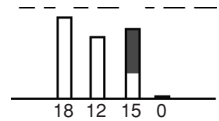
Option 2 gave 2 milligrams to each person. This was the result:

[30] Miller, *Principles of Social Justice*, p. 74.
[31] G. Brock, 'Needs and Global Justice', *Philosophy* 57 (2005), pp. 51–72.
[32] This experiment was conducted at the University of Arizona with Yali Corea-Levy. For more information on the details of this experiment please contact the author.

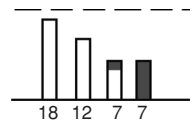
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Option 3 embodied a roughly utilitarian principle giving 9 milligrams to the third person (who had 6 milligrams and needed 14). This was the result:



Option 4 embodied a plausible interpretation of the strict priority principle giving 7 milligrams to the last person (who had zero milligrams and needed 20) and 1 milligram to the third person (who has 6 milligrams and needed 14). This was the result:



This was the distribution of rankings:

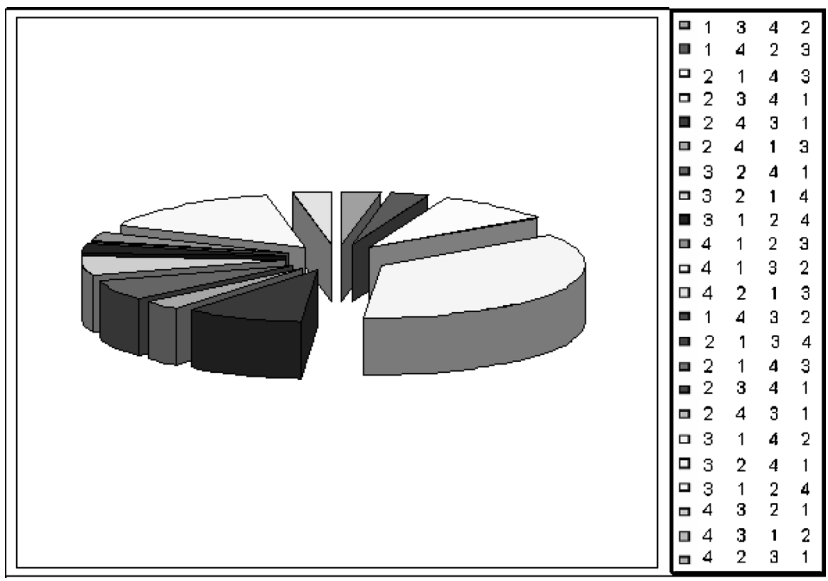


Figure 1. Experimental results

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Out of 33 participants, 12 ranked the options in the following order: 4, 2, 1, 3. A significant number also chose 4, 1, 3, 2.[33] Miller would choose 2, 4, 3, 1. Only 3 people chose Miller's ranking. This is not a significantly different number than the number one would expect to choose this ranking if people were picking the rankings randomly.[34] Obviously, the data do not support Miller's principle.

The data instead seem to support the strict priority principle. The fact that 12 out of 33 chose the ranking 4, 2, 1, 3 is significant.[35] So, one might wonder whether the data does not at the same time undercut the case for the effectiveness principle. This is not so. Because the experiment was designed to do many things, it is only capable of telling us whether the hypothesis that people accept the effectiveness principle is falsified. If participants ranked Option 1 ahead of Option 4 then they were not accepting the effectiveness principle. After all, comparing Option 1 and Option 4 one can see that Option 1 does not help the least well off (once the fourth person has more than the third) or help as many people as possible. However, 23 out of 31 participants ranked Option 4 before Option 1 (though some of these people did not choose 4, 2, 1, 3). On average, Option 4 is preferred to Option 1.[36]

One might point out that it is hard to falsify the claim that people are accepting the effectiveness principle. Only 6 out of 24 combinations of orderings can falsify the claim that people are accepting the principle.[37]

[33] We can use a binomial test to show that this is not significant. Supposing that some null hypothesis is true the p value is the probability of getting data as extreme or more extreme than the actual data. When the p value is greater than alpha we do not have a reason to reject the null hypothesis. In this case the null hypothesis is that all rankings are equally likely. The result we are testing is that 3 out of 33 people chose Miller's preferred ordering. So, we want to know if we can reject the hypothesis that 3 out of 33 people chose Miller's preferred ordering purely based on chance. The p value is greater than alpha when 1, 2, 3, or 4 people pick a ranking. So, the fact that 5 out of 33 people chose this ranking is significant. We can reject the hypothesis that it was the result of chance. The author would like to thank J. Neil Bearden for help with these statistics.

[34] See n. 31.

[35] See n. 31.

[36] This was determined by assigning a score of 4 to the first place option, 3 to the second place option, 2 to the third placed option, and 1 to the last place option, and summing the scores of each option. Option 4 (which embodied the strict priority principle) ranked first with a score of 97, Option 2 (which gave everyone an equal amount of vitamin) ranked second with a score of 86, Option 1 (which gave everything to the person who was originally least well off) ranked third with a score of 79, and Option 3 (which embodied a utilitarian principle) was last with a score of 59. This ranking system is equivalent to finding the average number of times people put each option in each place in the ranking.

[37] Option 4 can be ranked ahead of Option 1 only six different ways (4, 1, 2, 3, or 4, 1, 3, 2, or 4, 3, 2, 1, or 4, 2, 3, 1, or 4, 2, 1, 3, or 4, 3, 1, 2).

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I actually take this to be a reason to believe that the effectiveness principle is strong. The effectiveness principle has a great deal of explanatory power. Different weightings on its constituent principles can explain why people chose to distribute necessary goods in different ways. It is hard to falsify the claim that people are accepting the effectiveness principle but it is possible. Were there no preference for a version of the effectiveness principle we would expect only one quarter of participants to rank Option 4 before Option 1, but about three quarters of participants ranked this option first. The claim that most people are accepting the effectiveness principle is plausible.

One might counter that it is hard to show that people do not accept the effectiveness principle only because the principle is vague. The effectiveness principle contains weighted parameters but does not provide the weights; it does not tell us how much weight to give to the needs of the least well off or to helping additional people.

Perhaps there is something to this objection but the effectiveness principle is as definite as many other principles about how we should meet needs. Prioritarianism, for instance, does not tell us how much weight to assign to its parameters. Prioritarianism does not tell us how much weight to give to the needs of the less well off vs. the needs of the better off.

There is certainly room for further experimentation to figure out how most people weigh the different parts of the effectiveness principle. Hopefully, however, this article has done enough to motivate this inquiry. Furthermore, we now have enough information to say that most people do not accept Miller's principle. A good principle for need fulfillment does not have to embody a concern for equality.

6. CONCLUSION

Many people believe that institutions should help people meet their needs. For those that accept this conclusion there is a pressing question: how should institutions decide between different ways of fulfilling needs in situations where there is no guarantee that all needs can be met and where no special obligations obtain? After considering and rejecting several simple principles for meeting need, this article examined a recent proposal by David Miller. It argued that the concern for equality embodied in Miller's principle was misplaced. Rather, this article suggested a new *effectiveness* principle for fulfilling need. Certainly, more work is necessary to fully cash out the details of this principle. And, institutions cannot shut their eyes to morally relevant features of the real world that might lead them to different conclusions about what to do in different cases. Still, the effectiveness

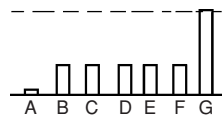
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principle provides institutions with a useful starting point for meeting needs.[38]

APPENDIX I: AVOIDING THE PROBLEMS WITH MILLER'S PRINCIPLE

Recall that Miller's principle had an unintuitive consequence. It entailed that whose needs it is best to meet depends on the number of people in the world who can already meet their needs. The effectiveness principle avoids this problem. Suppose that the weight given to each extra unit of need doubles. Suppose that helping an extra person is just as good as removing one extra unit of need. Now consider a case where Tamil has one unit of need and Effe has two units of need. On this version of the effectiveness principle, it is twice as good to reduce Effe's need by one unit as it is to reduce Tamil's need by one unit. Once Effe only needs one unit, it is equally good to help either Effe or Tamil. It is better to help both by reducing their need to .5 units each than to eliminate the need of either alone.

Consider what this version of the effectiveness principle recommends in the cases that caused problems for Miller's principle. Recall, the initial situation:

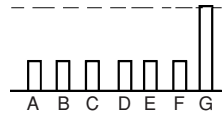


A needs two units to reach the threshold, B–F need one unit to reach the threshold, and G can meet her needs. Here is how we calculate the weighted need in this situation using this effectiveness principle: three units of weighted need for A (one for her first unit and two for her second unit of need) plus one unit of weighted need for B–F, equals eight units of weighted need.

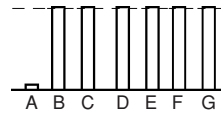
If an institution must either do *action one* relieving a unit of A's need or *action two* alleviating a unit of need for each of B–F, it should do action two. If it does action one, this is the resulting situation:

[38] The author would like to thank Thomas Christiano, Gillian Brock, Michael Gill, Jerry Gaus, Josh Knobe, Ben Fraser, Adam Cureton, Adam Arico, J. Neil Bearden, and especially Yali Corea-Levy with whom she conducted the experiment on how people think about meeting needs in this article. She would also like to thank the dissertation reading group at the University of Arizona, Shaun Nichols, and Larry Temkin for helpful discussion. She apologizes to anyone she has so carelessly forgotten to mention. Finally, she is terribly grateful for the support she received from the American Association of University Women and the Earhart Foundation during the course of the project.

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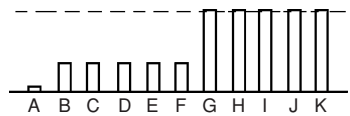


A–F are each left with one unit of weighted need so there are six units of weighted need total. If it does action two, this is the result:



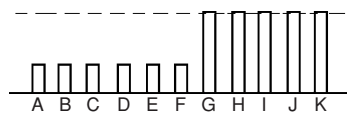
There are 3 units of weighted need left. Three units are less than 6. So, it is clear that action two is better than action one, even before taking into account the fact that more people are helped by doing action two.

This recommendation does not change if the initial situation contains additional people H, I, J and K (who are all able to meet their needs):

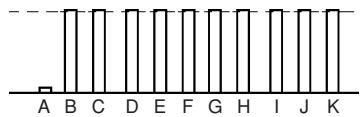


Again there are 3 units of weighted need for A (1 for her first unit and 2 for her second unit of need), plus 1 for B–F. There are 8 units of weighted need total.

If the institution gives one unit to A, this is the situation:



A–F each have one unit of need left for a total of six units of weighted need. If, instead, the institution gives one unit to B–F the result is this:



Three units of weighted need remain in this situation. Again, 3 is less than 6. It is clear that action 2 is better than action 1 even before we take into account the fact that more people are helped by doing action 2.

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Action 2 is always required by the effectiveness principle we are considering. A different way of cashing out the principle might suggest doing action one in all situations. But, no matter how it is cashed out, the effectiveness principle avoids Miller's problem. It will never entail that whose needs institutions should meet depends on how many people *are already able to meet their needs*. I leave it to the reader to verify that the effectiveness principle also avoids the leveling down objection.

hassoun@andrew.cmu.edu

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