Diminishing Marginal Utility of Income and Progressive Taxation: A Critique of *The Uneasy Case*

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CONTENTS

INTRODUCTION ........................................................... 373

I. THE UNCONVINCING CASE AGAINST DMUI ................................ 375
A. SELF-RANKED INCOME USE ........................................... 375
B. UTILITY PATTERNS .................................................. 379
1. Subsistence Income .................................................. 379
2. Function and Finery .................................................. 380
3. Higher Quantities .................................................... 381
4. Savings ................................................................. 382
5. Impossible Purchase Scenario ....................................... 384
C. WORK/LEISURE SUBSTITUTION ...................................... 384
D. SPECULATION OR EXPERIENCE? .................................... 389

II. POLICY SIGNIFICANCE OF DMUI ...................................... 390
A. INTERPERSONAL UTILITY COMPARISONS AND THE ASSUMPTION OF EQUAL CAPACITY TO ENJOY INCOME ......................... 390
B. DMUI AND THE CASE FOR PROGRESSION ......................... 392
C. IT'S EASIER WITH DMUI .............................................. 394
D. A BRIEF LOOK AT A NEW LOOK ...................................... 396

CONCLUSION .................................................................. 397

INTRODUCTION

In their classic 1952 article *The Uneasy Case for Progressive Taxation*, Professors Blum and Kalven skeptically review the major arguments for a progressive income tax, one under which the tax rate

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1. Walter J. Blum & Harry Kalven Jr., *The Uneasy Case for Progressive Taxation*, 19 U. Chi. L. Rev. 417 (1952). The article was republished the following year as a book.
imposed on income increases as the taxpayer's income increases.\(^2\) Blum and Kalven unequivocally reject every argument for progression save one. The sole ground on which they believe progression can be supported is that it reduces economic inequality. They do not, however, completely accept even the egalitarian argument. They ultimately refuse either to endorse or to condemn progression.

The linchpin of The Uneasy Case is its rejection of the principle that income has diminishing marginal utility.\(^3\) Diminishing marginal utility of income (DMUI) means that the greater a taxpayer's income, the less an additional dollar of income is worth to him. If DMUI holds, the government exacts a lesser sacrifice from a higher-income taxpayer, with each dollar taxed, than from a lower-income taxpayer. Moreover, any redistribution of income from a higher-income taxpayer to a lower-income taxpayer tends to increase aggregate welfare: The lower-income taxpayer derives greater utility from each dollar gained than the higher-income taxpayer derives from each dollar surrendered.\(^4\)

Progressive taxation has been supported under a number of theories, not all of them mutually consistent.\(^5\) The major common denominator of these theories is that they assume DMUI.\(^6\) In rejecting DMUI, The Uneasy Case has done a great deal to undermine the adherence of legal scholars to progression. While many scholars have continued to advocate progression, they often display timidity and defensiveness in the face of The Uneasy Case.\(^7\)

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2. An income tax under which all pay the same percentage of their income in tax is a proportional or "flat" tax. An income tax under which the tax rate declines as income increases is regressive.

3. Blum & Kalven, supra note 1, at 472-79. To a great extent, the diminishing marginal utility of income is but a specific application of the diminishing marginal utility of money. However, as the income tax taxes income rather than money, the more specific formulation is appropriate.

4. This explanation of DMUI contains certain assumptions about the distribution of the capacity to enjoy income. For a discussion of these assumptions, see infra notes 47-52 and the accompanying text.

5. See infra notes 53-56 and the accompanying text for a summary of these theories.

6. Indeed, Blum and Kalven speculate that intuitive acceptance of DMUI is the major reason for the popularity of progression. Blum & Kalven, supra note 1, at 477 n.152.

This article contends that Blum and Kalven's conclusions in *The Uneasy Case* have been too uncritically accepted. *The Uneasy Case* contains serious analytical flaws, particularly in its treatment of DMUI. There are a number of reasons to believe that DMUI is correct. These reasons include the manner in which taxpayers rank, through their preferences, the utility of the income they receive; the work/leisure habits of taxpayers; the microeconomic principle that goods consumed have in general diminishing marginal utility; and introspection as to how changes in income affect one's marginal valuation of income. As to all such matters, Part I of this Article contends, Blum and Kalven's analysis is marred by fallacy. Typically, Blum and Kalven distort the argument for DMUI, thus obscuring both the force of the argument and the inadequacy of their response.8

Part II of this article explores the relevance of DMUI to tax policy. It considers how Blum and Kalven's evaluation of the case for progression would have been different had they accepted DMUI. It also considers how a rejection of Blum and Kalven's position on DMUI relates to major recent scholarship9 that questions the conclusions of *The Uneasy Case* in areas other than DMUI.

I. THE UNCONVINCING CASE AGAINST DMUI

A. SELF-RANKED INCOME USE

One method of establishing DMUI is to observe that a taxpayer satisfies his most important wants with the income available to him, and that any other wants he might satisfy after an increase in income must necessarily be less important. This might be called the theory of self-ranked income use. The theory is given a fuller exposition by Lerner:

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Blum-Kalven conclusion that the case for progression is 'uneasy'... An equally painstaking examination of the case for a proportional rate structure, however, would in my opinion have ended with the same inconclusive verdict.'


Consumers spend their income in the way that maximizes the satisfaction they can derive from the goods obtained. With a given income, all the things bought give a greater satisfaction for the money spent on them than any of the other things that could have been bought in their place but were not bought for this very reason. From this it follows that if income were greater the additional things that would be bought with the increment of income would be things that are rejected when income is smaller because they give less satisfaction; and if income were greater still, even less satisfactory things would be bought. The greater the income the less satisfactory are the additional things that can be bought with equal increases in income.\textsuperscript{10}

Blum and Kalven do not accept the theory of self-ranked income use. They suggest, for one thing, that the theory cannot be probative, as to a given taxpayer, if he changes his original pattern of consumption after increasing his income:

The usual statement implies that when a man’s income is increased he continues to spend his original income as before and simply adds new items of expenditure as a result of the addition to income . . . . But this view oversimplifies the facts . . . . The man who at a relatively low income buys and enjoys a second-hand car usually does not, when his income increases, merely add a new car to his possessions and also continue to hold and enjoy the second-hand car as before.\textsuperscript{11}

Blum and Kalven are wrong to suppose that a mere change in original consumption can challenge the theory of self-ranked income use. The theory does not require a taxpayer to retain his used car after he has increased his income and bought a new one. All the theory postulates is that the taxpayer could have bought the new car at some lower income level but decided not to do so. He decided not to do so because the satisfactions that the new car would have displaced — presumably the used car plus a number of other satisfactions — had greater utility than the new car offered. As long as an increase in income causes the taxpayer to purchase an item that he previously rejected and that has lower per-dollar utility than the items he previously purchased, the taxpayer has experienced DMUI. It does not matter whether the newly-purchased item displaces another, less expensive item.

\textsuperscript{10} ABRA P. LERNER, THE ECONOMICS OF CONTROL 26-27 (1944).
\textsuperscript{11} Blum & Kalven, supra note 1, at 475.
Blum and Kalven do appear to offer another response to the theory of self-ranked income use. They appear to argue that preferences reverse with increases in income:

It is not plausible that the most important wants of a man with a $5,000 income remain his most important wants when he has an income of $25,000. As his income changes his way of life changes. He becomes in effect a man with a different hierarchy of wants and values.\(^{12}\)

The theory of self-ranked income use depends on a correspondence between preferences of diminishing intensity and the income used to satisfy those preferences. The hypothesis that preferences reverse with increases in income is thus at least arguably a challenge to the theory. But it is hard to determine how seriously Blum and Kalven assert this challenge because it is unclear to what extent they distinguish between preference reversal and mere changes in original consumption. As noted, changes in original consumption with increased income are entirely consistent with the theory of self-ranked income use. Moreover, a change in original consumption does not at all suggest preference reversal. If after experiencing an increase in income a taxpayer replaces his second-hand car with a new car, he has given no indication of preference reversal. Preference reversal has only occurred if he would now be willing, in order to keep the new car, to sacrifice whatever satisfactions he could have — but did not — previously sacrifice to obtain the new car.

Despite Blum and Kalven’s failure to draw a clear distinction between changes in original consumption and preference reversal, one can assume, for argument’s sake, that they do challenge the theory of self-ranked income use on the ground that preferences reverse with increases in income.\(^{13}\) This challenge, when scrutinized, is not very convincing. First, even if preference reversal accompanies an increase in income, it need not affect the self-ranking process. It is possible that the newly-enriched taxpayer does not derive greater per-dollar utility from the items he now prefers than he did from the items he previously preferred. It is possible, in other words, that there is no utility gain, but that the utility of the two sets of items has simply flipped.

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12. Id. at 476.

13. At least one observer, cited by Blum and Kalven, has explicitly denied the force of the theory on that ground. See Blum & Kalven, supra note 1, at 475 n.149 (citing Chapman, The Utility of Income and Progressive Taxation, 23 Econ. J. 25, 32 (1913)).
In the absence of utility gain, preference reversal is irrelevant. At whatever income level a taxpayer finds himself, and whatever his preferences may be, he will spend his money on the things from which he expects greatest utility and forgo the things from which he expects less utility. Assume that Blum and Kalven’s $5,000-income taxpayer purchases goods M, N, and O, in order of preference, and forgoes good P. Assume further that the taxpayer’s income increases to $10,000, whereupon he reverses his preferences and purchases goods T, S, R, Q, P and O, in order of preference, and forgoes M and N. Finally, assume that the taxpayer has experienced no utility gain: He derives the same satisfaction from his three most-valued goods- T, S, and R- as he did previously from goods M, N, and O.

At the higher income, the taxpayer has completely reversed his preferences. Nevertheless, this wholesale reversal has no implications for tax policy. The “last” or marginal dollars of the taxpayer’s newly-increased income still have lower utility than the last dollars of his previous, lower income. Even though he has now forgone the items he previously valued most, he has still purchased six items (each valued less than the previous one) as opposed to three. As the taxpayer has by hypothesis obtained no utility gain merely through the reversal of preferences, he will experience less loss in utility by surrendering his sixth purchase than he would had he, at the lower income, surrendered his third purchase.

Thus, in order to challenge the theory of self-ranked income use, one must hypothesize that increases in income are accompanied not only by preference reversal, but by preference reversal with utility gain. Why, however, should an increase in income lead to preference reversal with utility gain? Presumably money does not have a metamorphasizing power that operates directly on the pleasure centers of the brain; some other explanation must be offered.

One conceivable explanation is that increases in income expose a taxpayer to satisfactions he has not previously experienced. After the taxpayer experiences the newly-available satisfaction, he discovers that his previous estimation of it was mistaken. It affords more pleasure than he expected. Further, had he previously known how pleasing it would be, he would have sacrificed other satisfactions to obtain it. His previously revealed preferences were therefore mistaken and ignorant.  

14. In the interest of elegant archaism I have not altered the hypothetical to account for inflation.
15. The term ignorant is not used in a pejorative sense; it merely denotes lack
There is little reason to believe, however, that taxpayers in contemporary America are massively ignorant in their preferences, from lack of exposure, and that this ignorance is ameliorated as they move up the income scale. On the contrary, taxpayers at all income levels are exposed to the widest possible variety of potential satisfactions. One cause of such universal exposure is of course advertising; advertisers do their level best to realize for consumers, as far as possible, every conceivable satisfaction.  

It is odd that Blum and Kalven, who demand strict proof of all that is intuitive about DMUI, should so cavalierly claim great significance, without evidence, for the counter-intuitive hypothesis of preference reversals with utility gain. Blum and Kalven fail to establish that preference reversals with utility gain commonly accompany increases in income. They therefore fail to challenge the theory of self-ranked income use in any serious way.

B. UTILITY PATTERNS

Another method of establishing DMUI is to consider what use taxpayers at various income levels actually make of their income. Based on experience and observation, it is easy to conclude that the uses of income that predominate as one moves up the income scale have diminishing marginal per-dollar utility. This conclusion is actually the inevitable result of self-ranked income use, coupled with the commonality of taxpayers. If taxpayers had unique tastes, the preferences ranked through successive uses of income could vary randomly from taxpayer to taxpayer, even given DMUI. One taxpayer could prefer X to Y and Y to Z and another Z to Y and Y to X. But because taxpayers have a common biology and culture, they tend to rank certain types of expenditures as having higher utility and certain other types of expenditures as having lower utility.

1. Subsistence Income

First, of course, taxpayers will prefer those expenditures that enable them to survive. Blum and Kalven actually make a limited

of knowledge. For a discussion of how preferences can disserve utility and/or welfare, see Yew-Kwang Ng, Welfare Economics: Introduction and Development of Basic Concepts 7-12 (1979).

16. It might be ventured that even if taxpayers with lower incomes are exposed to all possible satisfactions, some satisfactions will be beyond their reach. I address this point infra at note 32 and the accompanying text.

17. I assume, again, that Blum and Kalven are not merely confusing preference reversals with changes in consumption.
exception to their rejection of DMUI to account for this point. If an individual's income is below "minimum subsistence level," Blum and Kalven appear to concede, it has higher marginal utility than income generally.\textsuperscript{18} Such a concession is of course necessary: If Blum and Kalven were to deny that a hundred dollars used to prevent a poor man from starving has greater utility than a hundred dollars added to a millionaire's already-ample bank account, their readers would likely reject their arguments out of hand.\textsuperscript{19}

However, it is not clear how Blum and Kalven propose to limit the principle that the satisfaction of certain wants — here, the preservation of life and all its future satisfactions — can confidently be assigned greater utility than the satisfaction of other wants. Consider again the hundred dollars of income that will be added to the millionaire's savings. Does it not have less utility than a hundred dollars spent to prolong rather than save a poor man's life, on items such as health care and a healthy diet? If so, does it not also have less utility than a hundred dollars spent to secure housing? After all, one can be homeless and still face no substantial danger of imminent death. And if the hundred dollars added to the millionaire's savings has less utility than a hundred dollars spent to secure housing, does it not also have less utility than the same amount expended on furniture, a television set, a car or even the cost of a child's summer camp? Perhaps lines can be drawn, but Blum and Kalven's failure to attempt any such line-drawing is telling.\textsuperscript{20}

2. \textit{Function and Finery}

Let us consider the types of expenditures that are commonly thought to have a relatively low per-dollar utility and that taxpayers tend to make only when their more important wants are satisfied.\textsuperscript{21}

\begin{footnotes}
\item[18.] Blum & Kalven, \textit{supra} note 1, at 473.
\item[19.] It is possible that Blum and Kalven do not even concede that income necessary for survival has greater utility than other income; their remarks can be interpreted to mean that it is unnecessary to valuate the marginal utility of subsistence income because such income will not in any event be subject to tax. However, subsistence income is in fact subject to heavy state and social insurance taxes. Although \textit{The Uneasy Case} focuses on the federal income tax, as does this article, one ultimately cannot ignore that other taxes exist.
\item[20.] The closest they come is the unamplified statement, later in their article, that "[o]ne can always insist that he can draw a distinction at the minimum subsistence level but that he can draw no further ones among persons above that level." Blum & Kalven, \textit{supra} note 1, at 509.
\item[21.] The following discussion is by no means exhaustive, but it should indicate some clearly recognizable utility patterns.
\end{footnotes}
A significant part of increases in income goes to purchase goods of a higher quality than those the taxpayer already possesses. Few would disagree that in general, there is greater utility from the acquisition of the good itself than from the step-up in quality. To be precise, there is a greater increase in utility from having no car to having a car than from having a car to having a luxury car.22

It is fairly easy to conclude, based on common experience, that improvements in the quality of goods increase utility less than the acquisition of goods, even if the improvement in quality consumes no more dollars than the acquisition itself. But improvements in quality often cost many times more than basic acquisitions. Consider a taxpayer who owns a $20,000 Chevrolet automobile. After an increase in income, he decides to buy an $80,000 Mercedes-Benz.23 It has already been suggested that there is a greater increase in utility from having no car to having a Chevrolet than from having a Chevrolet to having a Mercedes-Benz. However, that is not even required. If one assumes, counter-intuitively, that the step-up in quality is equal in utility to the acquisition of the good itself, the money spent to purchase the Mercedes-Benz will still have one-fourth the per-dollar utility of the money spent to purchase the Chevrolet. The step-up to the Mercedes-Benz must afford four times greater utility than the acquisition of the Chevrolet in order to avoid the conclusion that marginal utility of the money spent for the Mercedes-Benz has diminished.

3. Higher Quantities

Another use which taxpayers make of increased income is to purchase more of the same goods already possessed or consumed. It is a commonly accepted principle of microeconomics that increased consumption of a particular good is in general subject to a law of diminishing marginal utility.24 Few would be likely to disagree, for

22. One reason why taxpayers experience a greater increase in utility from the acquisition of basic goods than from improvement in quality is that if so-called luxury goods possessed features that truly afforded a substantial increase in utility, there would be a great consumer demand for those features. Consequently, there would be terrific market incentives for vendors or manufacturers to incorporate those truly useful features in basic goods as well.

23. One should assume no trade-in value; if there is a trade-in, the money spent to purchase the Chevrolet also is responsible for obtaining some of the utility conferred by the Mercedes-Benz.

example, that there is a greater increase in utility from having no car to having one car than from having one car to having two cars.

Blum and Kalven deny that the law of diminishing marginal utility, applicable to commodities generally, has any relevance to money. They claim that "[m]oney is infinitely versatile." However, a significant pattern of money use is to purchase an increased quantity of goods already possessed. If one accepts that a law of diminishing marginal utility applies to commodities generally, one must also accept that the money used to purchase commodities having diminished marginal utility has itself a diminished marginal utility.

4. Savings

The utility patterns just discussed are actually consumption patterns—they demonstrate the diminishing marginal utility of income that is consumed. Some income, of course, is not consumed, but saved. Savings patterns, like consumption patterns, reflect DMUI. They do so by reinforcing the conclusion that income consumed has diminishing marginal utility and by demonstrating, especially once that conclusion is accepted, that income saved also has diminishing marginal utility.

Savings is in a large sense consumption insurance. A major purpose of savings is to insure to the taxpayer a certain consumption level against the risk or expectation that the taxpayer's income, other than from savings, will diminish or disappear. The purpose of insuring a certain consumption level subsumes, among other things, saving for retirement.

The widespread interest of taxpayers in insuring a level of consumption, usually one not higher than currently enjoyed, is yet another indication that income consumed has diminishing marginal utility. If

25. Blum & Kalven, supra note 1, at 474.
26. Blum and Kalven seem to believe that the case for diminishing marginal utility of particular commodities is stronger than the case for DMUI. To the author the reverse seems to be true. With successive purchases of the same commodity, there need not be such a ranking of preferences as always occurs with income use.
27. It is commonly thought that insurance reflects DMUI; it is sometimes thought, conversely, that gambling reflects increasing marginal utility of income. See Milton Friedman & L. J. Savage, The Utility Analysis of Choices Involving Risk, 56 J. POL. ECON. 279 (1948). In stating that savings is consumption insurance, I am not of course assuming that consumption has a greater actuarial value than savings in the same way that a risk has a greater actuarial value than an insurance premium; rather, I am assuming that immediate gratification, all else equal, is preferred to delayed gratification.
income consumed had a constant marginal utility, taxpayers would have little or no reason to forego current increases in consumption in order to insure that future consumption remained above a certain level.\textsuperscript{28}

The distribution of savings among the income classes also tends to indicate that income consumed has diminishing marginal utility. As is well known, savings is progressive with income—as taxpayers move up the income scale, they save a greater and greater percentage of their incomes.\textsuperscript{29} For taxpayers at lower income levels, the satisfaction of immediate wants evidently has very great utility; that is why they do not forego current consumption in order to save. As taxpayers move up the income scale, increases in immediate consumption have less utility, making savings more attractive.\textsuperscript{30}

If one accepts that income consumed has diminishing marginal utility, it is easy to conclude, as well, that income saved has diminishing marginal utility. Each additional dollar of income saved, if it contributes at all to future consumption, is likely to contribute to a higher level of consumption than that which the previous dollar of income saved would have allowed. Thus, for example, a taxpayer who saves $10,000 per year for retirement will have available a higher consumption level, at retirement, than if he had saved only $5,000 per year. As consumption has diminishing marginal per-dollar utility, the income saved to achieve it also has diminishing marginal utility.

Moreover, the higher a taxpayer's income, the more likely it is that an additional dollar of income saved will not contribute to future consumption at all. At some point, for example, the taxpayer's consumption level will be fully insured, and no further savings will be necessary for this purpose.\textsuperscript{31} The diminishing likelihood that income

\textsuperscript{28} Another major function of savings is to allow the taxpayer temporarily to raise his consumption level above his income by, for example, purchasing a car. This function of savings is of course less and less important as the taxpayer's income increases.

\textsuperscript{29} Walter J. Blum, \textit{Revisiting the Uneasy Case for Progressive Taxation}, 60 \textit{Taxes} 16, 17 (1982). This effect is the basis for one of the most common arguments against progressive taxation. Opponents of progressive taxation argue that the economy benefits from a higher savings rate and that redistributing income from higher-income taxpayers to lower-income taxpayers would reduce the savings rate. \textit{Id.}

\textsuperscript{30} It might seem contradictory to argue that when the rich save, it reflects DMUI and when the poor do not save, it also reflects DMUI. However, for the poorer taxpayer the alternative to savings is consumption at a low level, which has high marginal utility, while for the richer taxpayer, the alternative to savings is consumption at a high level, which has low marginal utility.

\textsuperscript{31} It might be more accurate here to speak of the diminishing marginal utility of money, but income is not an unreasonable proxy for money.
saved will ever contribute to consumption is thus an additional reason to believe that income saved has diminishing marginal utility.

5. Impossible Purchase Scenario

One final utility pattern should be noted, as it relates to a qualification of the theory of self-ranked income use. Theoretically, self-ranked income use cannot reveal anything about the utility of expenditures that are completely beyond the taxpayer's reach. Assume that a taxpayer has a super-subsistence income of $40,000 and that his consumption cannot rise above his income by credit, savings, or other means. Such a taxpayer cannot purchase an item that costs $50,000, no matter how great its utility. It is at least theoretically possible that the utility of the $50,000 item is higher than that of the taxpayer's entire super-subsistence income of $40,000.

In the real world, however, taxpayers never assign any such enormous utility to any expenditure above their income. One does not see taxpayers sacrificing all of the satisfactions currently purchased with their super-subsistence income as soon as such a complete sacrifice makes it possible to purchase an item previously above their reach. Even home purchases, which involve perhaps the greatest common sacrifice by middle-income taxpayers, do not even approach such a scenario. In practice, therefore, the theory of self-ranked income use is not much affected by the scenario of the impossible purchase.

C. WORK/LEISURE SUBSTITUTION

Yet a third approach to DMUI is to consider how the work/leisure choices of taxpayers reflect their marginal valuation of income. On this matter Blum and Kalven's analysis is once again grounded in fallacy. They suggest that if taxpayers all worked the same number of hours, they would be exhibiting a constant marginal valuation of income. In fact, constant hours would be an indication of DMUI.

Assume that a taxpayer earning $5 per hour works the same number of hours as a taxpayer earning $100 per hour. Assume further

32. An exceptional case is related at Matthew 13:45,
45 Again, the kingdom of heaven is like unto a merchant man, seeking
goodly pearls:
46 Who, when he had found one pearl of great price, went and sold all that
he had, and bought it.

Id.
that the poorer taxpayer\textsuperscript{33} is subject to a marginal tax rate of 20\%, while the richer taxpayer is subject to a marginal rate of 50\%. Under these circumstances, the after-tax opportunity cost of an hour of leisure is $50 for the richer taxpayer but only $4 for the poorer taxpayer. In other words, the richer taxpayer must forego $50 in order to gain an additional hour of leisure, while the poorer taxpayer must forego only $4.

If income had a constant marginal utility, the increasing opportunity cost of leisure would lead taxpayers at successively higher incomes to work successively longer hours. As they by hypothesis do not display this behavior pattern, the marginal utility of income evidently diminishes.\textsuperscript{34}

Remarkably, Blum and Kalven appear to miss this point; they appear to believe that the work/leisure choices of taxpayers can only reveal DMUI if richer taxpayers work \textit{fewer} hours than poorer taxpayers:

The argument that the [marginal utility curve for income] declines asserts that men are less willing to work for an additional dollar the more money they have; it seeks to explain this on the grounds that they must therefore value additional dollars less the more money they have. But . . . [i]f willingness to work more is being measured solely by the time devoted to work, it does not seem to check with common observation to contend that the lower income groups work more hours per day. For one reason or another men in our society at all levels of the income scale seem to work roughly the same amount.\textsuperscript{35}

Blum and Kalven here confuse willingness to work for an additional hour with willingness to work for an additional dollar. A richer taxpayer and a poorer taxpayer who work the same number of hours cannot be said to value an additional dollar equally because they do not receive the same number of dollars per hour. Consider again our two hypothetical taxpayers, one earning an after-tax rate of $50 per hour and the other earning an after-tax rate of $4 per hour. Their equal willingness to work for an additional hour would indicate not that they are equally willing to work for an additional dollar, but

\textsuperscript{33} In this article the terms rich and poor are used, somewhat loosely, to refer to the level of one's income rather than the level of one's wealth.

\textsuperscript{34} There are explanations other than DMUI for why taxpayers might not respond to the increasing opportunity cost of leisure. As noted \textit{infra} at notes 37-39 and the accompanying text, however, they are unconvincing.

\textsuperscript{35} Blum & Kalven, \textit{supra} note 1, at 474.
that the richer taxpayer is as willing to work for an additional $50 as
the poorer taxpayer is to work for an additional $4. It would indicate,
consistent with DMUI, that the utility of a $50 increment to the richer
taxpayer approximates the utility of a $4 increment to the poorer
taxpayer.\(^{36}\)

Let us momentarily retain, unexamined, the assumption that
taxpayers at successively higher incomes do not work successively
longer hours. Is there any way to explain, without reference to DMUI,
why taxpayers would fail thus to respond to the increasing opportunity
cost of leisure? Two such explanations can be advanced, but neither
is convincing.

First, one can posit that higher-income taxpayers fail to work
more not because their marginal valuation of income diminishes but
because their marginal valuation of leisure increases. Blum and Kalven
do suggest that the value of leisure can increase with income: “[T]he
value of leisure must frequently be affected by the amount of money
one has and hence by the capacity to realize various forms of leisure,
such as travel.”\(^{37}\) However, they appear to make this suggestion only
in order to explain why some higher-income taxpayers might choose
to work \textit{less}. In order to explain why higher-income taxpayers fail to
work \textit{more}, one would have to argue not only that the value of leisure
increases with income, but that it increases, for the very rich, to an
astronomical level. One would have to argue, for example, that the
taxpayer earning an after-tax rate of $50 per hour values leisure twelve
times more, in dollars of constant marginal utility, than the taxpayer
earning an after-tax rate of $4 per hour. It is doubtful that Blum and
Kalven would care to make such an argument.

Moreover, although income can add to the utility of leisure, it
does not necessarily follow that richer taxpayers must value leisure
more highly, \textit{as opposed to work}, than do poorer taxpayers. A
countervailing factor may be that the work performed by richer
taxpayers is more pleasant than that performed by poorer taxpayers,
even after accounting for the premium pay some receive precisely
because they do unpleasant work. In other words, work may have a
higher intrinsic utility for richer taxpayers, quite apart from the
income that work produces.

\(^{36}\) It is strange that Blum and Kalven miss this point in the passage above-
quoted as they appear to understand it earlier in their article, in their discussion of
the rate at which the marginal utility of income declines. Blum & Kalven, \textit{supra} note
1, at 463-64.

\(^{37}\) Blum & Kalven, \textit{supra} note 1, at 474.
The other way to explain the failure of taxpayers to respond to the increasing opportunity cost of leisure, without reference to DMUI, is to posit that work/leisure choices are completely determined by biological constraints, such as the need for sleep, and by social norms. This explanation also fails. Certain norms do tend to collapse work/leisure decisions into a range of social acceptability. However, even given such norms, tax policy analysts, including Blum and Kalven, generally do not doubt that there is some substitutability between work and leisure—they concern themselves with the effect of taxes on incentives to work.38

Consider yet again our hypothetical richer taxpayer, the one earning an effective hourly rate of $100 per hour and facing a 50% marginal tax rate. The 50% marginal rate has the effect of reducing for the taxpayer, by 50%, the opportunity cost of an hour of leisure. If we are concerned that this 50% rate may cause the taxpayer to substitute leisure for income-producing work, we necessarily believe that the taxpayer's work/leisure choices are responsive to changes in the opportunity cost of leisure. A fortiori, then, we cannot believe that taxpayers would be unresponsive, absent DMUI, to the far greater differences in the opportunity cost of leisure that arise from differences in effective hourly rates. After all, even though the 50% marginal rate reduces the richer taxpayer's cost of leisure to $50 per hour, that cost is still 12 times higher, absent DMUI, than the opportunity cost of leisure faced by the poorer taxpayer earning an after-tax rate of $4 per hour.39

To the extent that taxpayers at successively higher incomes do not work successively longer hours, their behavior reflects DMUI. However, the reverse is not also true. To the extent that taxpayers at successively higher incomes do work successively longer hours, their behavior does not negate DMUI, even if one assumes that the longer hours are a response to the increasing opportunity cost of leisure. Assume that the taxpayer earning an after-tax rate of $50 per hour works longer hours than the taxpayer earning an after-tax rate of $4

38. Blum & Kalven, supra note 1, at 437-39, 469. For a discussion of recent literature on the effect of taxes on labor supply, see Bankman & Griffith, supra note 9, at 1919-29, 1962-65.

39. Essentially similar to the idea that work/leisure choices are completely determined by norms is the idea that the marginal utility of leisure becomes so precipitously high, after leisure hours are reduced to a given total, that the increasing opportunity cost of leisure has no effect. This idea is likewise contradicted by the assumption that taxpayers do respond to changes in the opportunity cost of leisure brought about by the raising or lowering of tax rates.
per hour. The richer taxpayer might be indicating that he finds leisure more expensive than does the poorer taxpayer; he is not necessarily indicating that he finds it twelve times more expensive, in dollars of constant marginal utility, than does the poorer taxpayer.

A more technical explication of this point is perhaps in order. Assume that all taxpayers worked exactly the same number of hours. Such uniformity would suggest that each taxpayer valued equally one hour's pay or, to put it more generally, that each valued equally any given percentage increase in his income. This state of affairs is described by the logarithmic utility function \( U = \ln I \), or totally utility equals the natural logarithm of total income. Under this logarithmic function, a given percentage increase in income — say 10 percent — results always in the same increase in total utility, regardless of how high or low income may be.

The marginal utility function corresponding to the above-described logarithmic utility function is \( MU = 1/I \). Under this marginal utility function, as income approaches zero, marginal utility approaches infinity. Conversely, as income approaches infinity, marginal utility approaches zero. If taxpayers at successively higher incomes worked successively longer hours, we might conclude that the marginal utility of income did not in fact decline over so wide a range or at so rapid a rate. We would not necessarily conclude, however, that the marginal utility of income was constant; perhaps taxpayers would be reflecting, by their behavior, some intermediate marginal utility curve.

Let us now consider how realistic is the assumption, evidently accepted by Blum and Kalven as true for 1952, that taxpayers at successively higher incomes do not work successively longer hours. The economist Colin Clark has suggested a universal law, based on empirical data, that hours of work decrease with increased income. However, Clark's data concern average hours worked in entire societies over different time periods; he does not compare average hours worked by different income classes in the same time period. It seems likely that in contemporary America at least some higher income classes work, on average, longer hours than some lower income classes.

42. Professor Laura Leete-Guy, Dept. of Economics, Case Western Reserve University, has graciously provided me with the following data on hours worked by
In evaluating these disparities, one would have to factor out various constraints on hours worked by lower-income groups, such as involuntary unemployment and underemployment and the disincentive of employers to allow employees covered by overtime laws to work more than forty hours per week. In the other direction, one would also have to factor out the disincentive effect of higher marginal tax rates and the effect that longer hours themselves have in increasing income. Despite these and other complicating factors, it is pretty clear, especially as between the wealthy and the wealthier, that the work/leisure choices of contemporary Americans do not display the type of response to the increasing opportunity cost of leisure that one would expect if income had a constant marginal utility. The key point is to understand that constancy of hours across income classes reflects a rather steeply declining marginal utility curve for income, not, as Blum and Kalven would have it, a constant marginal utility of income.

D. SPECULATION or EXPERIENCE?

After denying that DMUI can be established through the theory of self-ranked income use or by observation of work/leisure choices, Blum and Kalven opine that the only remaining way to establish DMUI is by "sheer intuition" of how our marginal valuation of money would change if "we had many times the amount of money we now have." They acknowledge that most people would probably expect to value an additional dollar less if their wealth increased greatly. But they later question the reliability of this conclusion.

As noted above, there are many reasons, aside from sheer intuition, to believe that income has diminishing marginal utility. But Blum and Kalven even sell intuition short. For a large number of people, it is not necessary to speculate on how an increased income would affect their marginal valuation of income; they have experi-

<table>
<thead>
<tr>
<th>Family Income Level</th>
<th>Mean Market Hours Worked</th>
<th>Mean Total Hours Worked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $15,000</td>
<td>633.25</td>
<td>2,023.49</td>
</tr>
<tr>
<td>$15,000 to $29,999</td>
<td>1,217.32</td>
<td>2,426.44</td>
</tr>
<tr>
<td>$30,000 to $44,999</td>
<td>1,516.10</td>
<td>2,638.20</td>
</tr>
<tr>
<td>$45,000 or more</td>
<td>1,666.24</td>
<td>2,629.80</td>
</tr>
</tbody>
</table>

The "total hours" column includes hours spent in household production. Professor Leete-Guy is co-author of Leete-Guy & Schor, Assessing the Time-Squeeze: Hours Worked in the United States, 1969-1989, INDUS. REL. (forthcoming).

43. Blum & Kalven, supra note 1, at 477.
44. Id. at 478-79.
enced actual shifts in income, and can gauge the actual effects of those shifts. The most common phenomenon, of course, is an increase in income. Most young people experience such an increase, except in times of depression. There are also a significant number of people who, because of financial reversals or other reasons, experience a decrease in income. The evaluation of such shifts is still a form of introspection, but it is far more reliable than the retrospective speculation that Blum and Kalven would count as the sole basis for intuitive conclusions.

Blum and Kalven concede that most people intuitively believe in DMUI; they conjecture that such a belief is due to speculation as to the effect of an increased income. Is it not likely, however, that the common belief in DMUI is at least in part due to experience?

The above section on utility patterns essentially detailed the manner in which an individual’s experience tends to lead to a belief in DMUI. The individual reviews his expenditures and concludes that the items bought with increased income had less utility per dollar than the items purchased at a lower income. However, the discussion of utility patterns offered above is by no means exhaustive and describes experiences that are more significant for some than for others. Thus, it is good to remember that most adults can directly intuit DMUI or its negation from experience.

II. Policy Significance of DMUI

A. INTERPERSONAL UTILITY COMPARISONS AND THE ASSUMPTION OF EQUAL CAPACITY TO ENJOY INCOME

The remainder of this article will examine the tax policy significance of DMUI. As a first step in such an examination, it is necessary to address the issue of interpersonal utility comparisons. The government must be able to make such comparisons if DMUI is to have any significance at all for tax policy. It is not enough that a taxpayer derives less utility from a marginal dollar when he has an income of $50,000 than when he has an income of $25,000. The government must also be able to assume that a $50,000-income taxpayer derives less utility from a marginal dollar than a different taxpayer earning an income of $25,000.

As between these two hypothetical taxpayers, it is theoretically possible that the richer taxpayer values the 50,000th dollar of his

45. Id. at 477 n.152.
46. See supra notes 18-32 and accompanying text.
income more highly than the poorer taxpayer values the 25,000th dollar of his income. After all, taxpayers differ in how highly they value money, and some taxpayers may even have a greater capacity than others to enjoy the things money can buy. Blum and Kalven in fact assert that as one cannot properly assume that all taxpayers derive the same utility from the same amount of income, DMUI has no relevance for tax policy. 47

The fallacy of this reasoning is that it is completely proper to assume equal capacity to enjoy income, even though this assumption may be false, unless one actually knows that certain taxpayers derive greater utility from income than others. If it is possible that the richer taxpayer has, so to speak, a higher marginal utility curve for income, it is also possible that the poorer taxpayer has a higher curve. Perhaps if the poorer taxpayer had an income of $50,000, he would value the 50,000th dollar of that income more highly than the richer taxpayer now values the 25,000th dollar of his own $50,000 income. As Lerner and others have demonstrated, if the marginal utility of income diminishes for both taxpayers, and if one is ignorant as to the relative capacities of the two taxpayers to enjoy income, one must assume that the richer taxpayer values a marginal dollar of income less than the poorer taxpayer. 48

This assumption becomes more and more justifiable as the difference in the two taxpayers' incomes increases. It becomes completely unexceptionable, as a statistical matter, when applied to large classes of taxpayers. Thus, if DMUI holds for all taxpayers, one can safely assign a probability of 1.0 to the likelihood that the average valuation of a marginal dollar is lower for taxpayers earning above $50,000 than for taxpayers earning below $50,000. This conclusion would only be subject to doubt if it were shown that taxpayers earning above $50,000 had, on average, a greatly superior capacity to enjoy income than taxpayers earning below $50,000.

The point that one must assume equal capacity to enjoy income, absent knowledge to the contrary, has been made on numerous occasions by numerous observers. 49 Blum and Kalven appear either to misunderstand or to ignore this point, as they make no response to it. This lack of any response is odd as they themselves quote, in a footnote, one observer's statement of the point. 50

47. Blum & Kalven, supra note 1, at 476-77.
49. See supra note 48.
50. "The question is not... whether men's wants are equal, but whether there
Others, notably including Judge Posner, have asserted that the rich may indeed have a greater capacity to enjoy income than the poor. Judge Posner hypothesizes that "the people who work hard to make money and succeed in making it are on average those who value money the most, having given up other things such as leisure to get it." Some check on this idea is provided by the above section on work/leisure choices. It should be remembered that work/leisure choices reflect DMUI on an interpersonal level; they suggest that a taxpayer with a higher income really does value a marginal dollar less than a different taxpayer with a lower income.

In any event, there are a great many factors, apart from the desire for income, that determine the actual level of a taxpayer's income. Even if there is some positive correlation between income and the capacity to enjoy income, it is hard to believe that such a correlation could deprive DMUI of policy significance. At most, perhaps, one would have to construct an interpersonal marginal utility curve with a more gentle downward slope than the average personal marginal utility curve.

B. DMUI AND THE CASE FOR PROGRESSION

Blum and Kalven's too-hasty rejection of DMUI figures largely in their conclusion that the case for progressive taxation is uneasy. Most of the arguments in favor of progressive taxation depend on DMUI. By rejecting DMUI, Blum and Kalven unjustifiably discount these arguments.

One argument commonly advanced for progression is that the government should exact from all taxpayers an equal sacrifice. This argument obviously depends on DMUI: If the marginal utility of income were constant, equal sacrifice would require not progression, but a lump-sum or "head" tax. A variant of equal sacrifice is proportional sacrifice, the idea that all taxpayers should sacrifice an equal proportion of the utility they derive from income. Once again,
this argument depends on DMUI: If the marginal utility of income were constant, proportional sacrifice would not result in progressive taxation, but in proportional taxation.

At least as important as these two arguments is the utilitarian case for progressive taxation. Utilitarianism seeks to maximize the aggregate utility of all individuals in society. One possible means of maximizing aggregate utility is to redistribute income, through the tax system, from those who value it less to those who value it more. Obviously, however, if the marginal utility of income were constant, redistribution from the rich to the poor would not necessarily increase aggregate utility.

Although most of the major arguments for progression depend on DMUI, none of them is irrefutable even if DMUI is accepted. All are subject to other reservations, many of which Blum and Kalven indeed advance. Thus, equal sacrifice results in progression only if the marginal utility of income diminishes at greater than an inverse ratio to the increase in income. If a tax of $10,000 on a $100,000-income taxpayer occasions less sacrifice than a tax of $1000 on a $10,000-income taxpayer, equal sacrifice demands progression. If, however, the sacrifices are identical, equal sacrifice demands proportional taxation.

Proportional sacrifice requires weaker assumptions about the marginal utility curve for income. However, it does require some assumptions as to the nature of the curve, and further presents the philosophical issue of why taxpayers should sacrifice an equal proportion of their income-generated utility, rather than an equal amount.

Utilitarianism must contend with the efficiency costs of progressive taxation. Prime among these costs is the possible tendency of higher-income taxpayers to substitute leisure for income-producing

55. Id. at 465-71 (utilitarianism as requiring "minimum sacrifice").
56. For a modern example of an unalloyed utilitarian approach to tax policy, see Yew-Kwang Ng, Bentham or Bergson? Finite Sensibility, Utility Functions and Social Welfare Functions, 42 REV. ECON. STUD. 545 (1975).
57. Blum & Kalven, supra note 1, at 458. As noted supra at note 40 and the accompanying text, the marginal utility function under which the marginal utility of income diminishes at an inverse ratio to the increase in income is MU = 1/I.
58. And of course, if a $10,000 tax levied on a $100,000 income occasions greater sacrifice than a $1000 tax levelled on a $10,000 income, equal sacrifice demands regression.
59. A weak assumption is one that does not assume very much, that does not impose very many demands on the data.
60. Blum & Kalven, supra note 1, at 459.
work when faced with high rates. A utilitarian argument for pro-
gression must advance certain weak assumptions about the efficiency
costs of taxation and the rate at which the marginal utility of income
diminishes. However, most observers, including Blum and Kalven,
believe that given DMUI, utilitarianism does require some progres-
sion. Probably a more challenging objection to the utilitarian ap-
proach is that it gives short shrift to a taxpayer’s entitlement to the
income he has earned.

The objections sketched out above to the various theories of
progressive taxation are not insignificant. Nevertheless, the denial of
DMUI — if successful — would be the most fundamental and
complete refutation of them all. When one recognizes that Blum and
Kalven have failed successfully to deny DMUI, all these theories gain
additional force.

C. IT’S EASIER WITH DMUI

It is instructive, for example, to consider how the specific con-
clusions of The Uneasy Case would be different had Blum and Kalven
accepted DMUI. As noted above, the only ground on which they
believe progression can legitimately be advocated is egalitarianism.
Blum and Kalven seem drawn to the goal of economic equality for
two reasons. First, they simply see it as a fundamental value; they
quote Henry Simons’ statement that "the case for drastic progression
in taxation must be rested on the case against inequality — on the
ethical or aesthetic judgment that the prevailing distribution of wealth
and income reveals a degree . . . of inequality which is distinctly evil
or unlovely." They also seem drawn to the goal of economic equality
based on a theory of entitlement, not precisely enunciated, under
which those who earn high incomes are not necessarily more deserving
of the money thus earned than poorer taxpayers.

61. See Bankman & Griffith, supra note 9, at 1919-29, 1962-65.
62. After all, if the marginal utility of income diminishes at a very gentle rate,
and if efficiency costs such as work disincentives result in significantly lower produc-
tion of income, it is theoretically possible for redistribution of income to result in a
loss in aggregate utility.
63. Blum & Kalven, supra note 1, at 468-69, 491.
64. Id. at 486-506.
65. Id. at 488 (quoting Henry C. Simons, Personal Income Taxation 18-19
(1938)).
66. Id. at 496-503. A more precise formulation of such a theory of egalitarian
entitlement is offered by Tobin: "Anyone's earning capacity is dependent on a
complex web of interdependence . . . . Market prices are probably a good way of


The egalitarian case for progressive taxation would be strengthened considerably if one accepted the utilitarian conclusion that greater equality means greater aggregate utility. As noted, Blum and Kalven concede that if income has diminishing marginal utility, egalitarian redistribution will increase aggregate utility. The only ground on which they reject the utilitarian argument for redistribution is that it is “enmeshed in considerations of whether money has a declining utility.” Had Blum and Kalven accepted DMUI, they would have had strong additional grounds to accept the egalitarian case for progression.

Moreover, a recognition that more equal distribution of income entails greater aggregate utility would have blunted the force of many of Blum and Kalven’s doubts about egalitarianism. Such a recognition, for example, would explain why advocates of progression generally have not favored more drastic means to achieve equality, such as the socialization of property. Unlike redistribution through taxation, any such destruction of the market economy would have dire efficiency consequences, leading to a decrease in aggregate utility. A utilitarian approach also helps to explain why, as Blum and Kalven speculate, the issue of lessening inequality might not appear “any less urgent” if “by a convenient miracle the wealth and output of the society trebled over night without any changes in its relative distribution among individuals.” Even if everyone experienced an increase in individual utility, it would still be proper to seek further increases in aggregate utility through the tax system.

If acceptance of DMUI would give Blum and Kalven additional reasons to support progression on egalitarian grounds, it would also give them some reason to accept a theory of progression that they otherwise completely reject: proportional sacrifice. As between proportional sacrifice and equal sacrifice, Blum and Kalven avidly prefer the former. Moreover, they consider “advocacy of proportionate

allocating resources . . . . What is not justified is the presumption that these prices are just deserts. It is not unreasonable to attribute part of the national product to the general social overhead capital and to allocate it as a social dividend for equal division.” J. Tobin, Considerations Regarding Taxation and Inequality, in INCOME REDISTRIBUTION 131-32 (C. Campbell ed., 1977).

67. Blum & Kalven, supra note 1, at 468, 491.
68. Id. at 491.
69. Id. at 520 (“[T]he perplexity is greatly magnified for those who in the quest for greater equality are unwilling to argue for radical changes in the fundamental institutions of the society.”).
70. Id. at 490.
71. Id. at 459-60.
sacrifice on the assumption that the utility of money declines" to be the most sensible argument for progression apart from egalitarianism. Their only problem with this argument is that they are not convinced that the marginal utility of money declines. With this doubt removed, they would be closer to accepting proportional sacrifice as a justification for progression.  

D. A BRIEF LOOK AT A NEW LOOK

A few years ago Professors Bankman and Griffith published what is perhaps the most important and comprehensive article on progressive taxation since The Uneasy Case. Among its other charms, this article contains an introduction to the field of optimal taxation which is intelligible to the non-economist. Optimal tax systems use complex mathematical models to calculate the rate structure that will produce maximum welfare under various assumptions as to the determinants of welfare and as to the effect of taxation on behavior. After a review of optimal tax theory and of other relevant economic research, Bankman and Griffith conclude that "[based on what we know now . . . the case for progressive taxation appears to be far less uneasy than has been claimed." Bankman and Griffith do not, however, address the issue of DMUI. They merely assume, after the fashion of optimal tax theorists, that income has a diminishing marginal utility.

72. Id. at 489 n.181.

73. Of course, Blum and Kalven may simply be drawn to proportional sacrifice because if the marginal utility of income does not decline, this theory results in proportional taxation. However, one should not inquire too deeply into the motivation behind an author's position, especially when that position advances one's own argument.

74. Bankman & Griffith, supra note 9.

75. The author can testify to this accomplishment of Bankman and Griffith, having sampled the optimal tax literature, with considerable bewilderment, before reading their article. For a recent survey of this literature, see Joel Slemrod, Optimal Taxation and Optimal Tax Systems, 4 J. Econ. PERSPECTIVES 157 (1990).

76. Bankman & Griffith, supra note 9, at 1967. The rate structure favored by Bankman and Griffith, however, bears little resemblance to the graduated rate structure of the American income tax. Based on the findings of optimal tax theorists, Bankman and Griffith urge the adoption of a tax system that includes very substantial cash grants ("demogrants") to all citizens, coupled with a flat rate or even declining marginal rates.

77. "The assumption that the value of an additional dollar to an individual declines as the number of dollars he owns increases . . . is common in economic analysis." Bankman & Griffith, supra note 9, at 147.
DMUI may require no serious defense among economists. It does require such a defense in the legal literature, however, precisely because of *The Uneasy Case*. Indeed, if income had a constant marginal utility, the optimal tax systems presented by Bankman and Griffith would demand a regressive income tax.\(^7\) This article thus complements Bankman and Griffith's work by demonstrating that contrary to protestations in *The Uneasy Case*, the assumption of DMUI in tax policy is reasonable.

**CONCLUSION**

*The Uneasy Case* has been criticized for placing the burden of proof on progression while assuming that proportional taxation need not be justified.\(^7\) This criticism is accurate but does not, in itself, detract much from the force of Blum and Kalven's argument. If the case for progression can only avoid disrepute by arrogating to itself a presumption of favor, that case is weak indeed.

The real problem with *The Uneasy Case* is its failure to meet or even acknowledge burdens on issues subsidiary to progression, particularly DMUI. Certain arguments for DMUI are so powerful that those who would deny DMUI can prevail only by making affirmative showings. Doubters of DMUI must explain why richer taxpayers do not work longer hours; they must demonstrate the extent to which preference reversals with utility gain accompany increases in income; they must prove that richer taxpayers have a substantially greater capacity to enjoy income. On these issues and others, Blum and Kalven fail.

Blum and Kalven concede that DMUI seems intuitively correct.\(^8\) After scrutinizing their arguments, one must conclude that it seems correct because it is correct.

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\(^{7}\) Under the assumption of constant marginal utility, aggregate welfare would be reduced by progression and even by a completely proportional tax, as a result of efficiency costs.

\(^{79}\) See, e.g., Bankman & Griffith, *supra* note 9, at 1910-15.

\(^{80}\) Blum & Kalven, *supra* note 1, at 472.