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Why is violence more common
where inequality is greater?

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Where Inequality is Greater? *Ann N Y Acad Sci*, 1036, 1-
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Abstract

The most well established environmental determinant of levels of violence is the scale of income differences between rich and poor. More unequal societies tend to be more violent. If this is a relation between institutional violence and personal violence, how does it work and why is most of the violence a matter of the poor attacking the poor rather than the rich?

This paper starts off by showing that the tendency for rates of violent crime and homicide to be higher where there is more inequality is part of a more general tendency for the quality of social relations to be poorer in more hierarchical societies. Research on the social determinants of health is used to explore these relationships. It is a powerful source of insights because health is also harmed by greater inequality. Because epidemiological research has gone some way towards identifying the nature of our sensitivity to the social environment and to social status differentials in particular, it provides important insights into why violence is related to inequality.

The picture which emerges substantiates and explains the common intuition that inequality is socially corrosive. With an evolutionary slant, and informed by work on ranking systems in non-human primates, it focuses on the sharp distinction between competitive social strategies appropriate to dominance hierarchies and the more affiliative social strategies associated with more egalitarian social structures. The implications for policy seem to echo the importance to the quality of life of the three inter-related dimensions of the social environment expressed in the demand for “liberty, equality, fraternity”.

In 1991, Helena Cronin, in her book *The Ant and the Peacock*, presented data comparing homicide rates by age and sex (of the perpetrator) in Chicago and in England and Wales. In both places the propensity to commit homicide had exactly the same age and sex distribution. Women of course showed very low rates throughout life, but among men rates rose to a huge peak in the late teens and early 20s then declined throughout the rest of life (1). However, despite the extraordinary similarity in the age and sex distribution of homicides in Chicago and England and Wales – so similar that it is difficult to distinguish them graphically, the absolute rates of violence were totally different – some 30 times higher in Chicago than in England and Wales. Overlaying a remarkable similarity in the pattern of homicides in the two places, there is something vastly different. The similarity looks as if it reflects an invariant, perhaps biological, component (male gender and early adulthood), while the difference reflects some varying environmental component.

So what is the environmental component? The most plausible and well documented candidate, is the scale of inequality – the size of the income differences between rich and poor. Figure 1 shows the relationship between income inequality and homicide rates in US states and Canadian provinces (2). In the states and provinces that are more egalitarian (lower Gini coefficient), the rate of homicide is low; the opposite is true for the states and provinces that are more unequal. Figure 2 shows that there is a similar relation between income inequality and homicide internationally. There are now 50 or more such studies that have examined homicide rate in relation to income inequality, among communities, states and countries. A meta-analysis concluded that this

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is a robust relationship (3). It stands up to controlling for a range of other social and economic influences and several research reports refer to it as the most consistent evidence of an environmental influence on violence (4, 5, 6).

The relation between violence and inequality appears to be part of a more general tendency for the quality of social relationships to be less good in more unequal societies. As well as more violence, people in more unequal societies tend to trust each other less and are less likely to be involved in community life. There are lower levels of social capital; hostility levels seem to be higher and there is almost certainly more discrimination against minorities and against women (7).

In the past, many people – as far back as de Tocqueville and earlier – have regarded inequality as divisive and socially corrosive. We now have data that confirm their intuitions. Using a question on trust from the General Social Survey, one study found that the proportion of people who agree that “most people would try to take advantage of you if they got the chance” was much higher in more unequal states (8). As can be seen in Figure 2, in the more equal states only 10 or 15 percent of the population agree that they cannot trust others. This rises to 35 or 40 percent in the more unequal states. Not only are these very important differences, but a similar pattern of lower levels of trust where income inequalities are larger has also been shown in international studies (9).

Robert Putnam is well known for his extensive work on social capital, and a careful reading of it shows that community life is stronger where there is less inequality. For

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example, in his work on the 20 administrative regions of Italy (10), and referring to an egalitarian social ethos rather than to income inequality itself, he says: “equality is an essential feature of the civic community” (p.105). Based on his survey data he also says “Citizens in the more civic regions have a pervasive distaste for hierarchical authority patterns” (p.104). In a footnote he also mentions that his index of the strength of community life in the regions of Italy is closely correlated ($r=0.8$) with income inequality in the same regions (p.224 note 52). In his book, *Bowling Alone*, on social capital in the United States, he shows similar cross-sectional associations between income inequality and measures of involvement in community life among the 50 states (11). He also emphasises how very closely changes in social capital have mirrored changes in inequality during the 20th century. He says:

“Community and equality are mutually reinforcing... Social capital and economic inequality moved in tandem through most of the twentieth century. In terms of the distribution of wealth and income, America in the 1950s and 1960s was more egalitarian than it had been in more than a century. ...those same decades were also the high point of social connectedness and civic engagement. Record highs in equality and social capital coincided.

Conversely, the last third of the twentieth century was a time of growing inequality and eroding social capital. By the end of the twentieth century the gap between rich and poor in the US had been increasing for nearly three decades, the longest sustained increase in inequality for at least a century. The timing of the two trends is striking: somewhere around 1965-70 America reversed course and started becoming both less just economically and less well connected socially and politically.” (p.359)

It is now clear that the long-standing intuitive recognition that inequality is socially divisive is supported by a number of different kinds of evidence: from cross-sectional studies of social capital among different regions of Italy and among the 50 states of the USA; by time series trends in social capital in the US; by international and US studies of

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trust; and by a large number of studies of homicide and violent crime rates – both internationally and within countries. Together, these leave little room to doubt that larger income differences are accompanied by a poorer quality of social relations in society.

How is it that income inequality *within* a society – rather than the absolute level of income itself – has such a profound impact on violence and the quality of social relations? I started to look at this question primarily to understand why health, which is strongly affected by the quality of social relations, is also better in more egalitarian countries. The association between inequality and health is very similar to the association between inequality and violence; so much so, that understanding one helps us understand the other (7). The question with health was how do things in the broad structure of society, apparently so far from our individual personal lives, “get under the skin” to affect health? As the answer to that question helps us understand our sensitivity to the social environment in a way which also explains the link between violence and inequality, I will outline the picture emerging from health research.

The evidence is now fairly clear that chronic stress is among the most powerful factors influencing health. Chronic stress affects a number of physiological systems – cardiovascular, immune and endocrine – making us more vulnerable to a wide range of diseases (12). It has such widespread physiological effects that it has been likened to more rapid aging. At the center of the stress response is a shift in physiological priorities. The effect of some perceived threat or emergency is to make our bodies prepare for muscular activity – the fight or flight response. Energy deposits are mobilized, heart rate

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and blood pressure rise, we become very alert, and reaction times are reduced so that we are ready to deal with whatever the threat is. At the same time, “housekeeping” processes important to health, like tissue maintenance and repair, growth, digestion and reproductive functions, which are not essential in helping us to survive a brief emergency, are down-regulated. If the stress goes on for more than about an hour, even immunity is down-regulated.

Brief emergencies are not a problem, but if we go on feeling anxious, worried or nervous, for weeks, months or years on end, then there are more likely to be health costs.

The most important determinants of chronic stress in developed societies seem to be related to the social environment. I shall outline the three most important ones, starting with low social status. A number of different kinds of evidence lead us to this conclusion. One of these is exemplified by the first of the “Whitehall studies” of UK civil servants which followed up 17,000 civil servants working together in government offices. Researchers found three-fold difference in mortality between those working at the top and bottom of the office hierarchy (13, 14). This remarkable social gradient in death rates (intermediate ranks had intermediate death rates) could not have been the result of absolute material need or want: the study population excluded the unemployed, the poor and the homeless – it was a study of people with secure jobs who would almost all call themselves “middle class”. Nor could the larger part of the observed differences in death rates be explained in terms of smoking, access to health care, living standards, or other factors known to affect health.

Findings of this kind, from numerous different studies, need to be set alongside the fact that, across developed societies, there is almost no relationship between life expectancy and *absolute* levels of income as measured for instance by Gross National Income per capita, even after adjusting for price differences in different countries (15, 16). For example, life expectancy in Greece – a country roughly half as rich as the US – is greater than in the US even though the US spends much more per head than any other country in the world on medical care. Yet, although differences in average income and living standards *between* the rich developed countries are unrelated to health, *within* each country health is, as we have seen, finely graded by socioeconomic status.

If health is not related to income differences between the developed societies but is related to income differences within them – even among the non-poor “middle class”, it suggests that we are looking at the health effects of relative income and social status, of social position, dominance and subordination, rather than at the direct, asocial, effects of material living standards themselves.

Among humans it is difficult to clinch the issue because social status is almost always closely related to living standards. However, among non-human primates it is possible to make an unambiguous distinction. Experiments have been done in which social status has been manipulated by moving animals between groups, while food and other material conditions were held the same as among other animals (17). The results not only showed that the stress of subordinate social status has widespread implications for health, but a

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number of the health effects of low social status among the animals are similar to those known to be associated with low social status among humans (12). These and other considerations make it clear that the social gradient in health in rich countries hinges more on social position in the dominance hierarchy than on material living standards independent of social status (18).

The next feature of the social environment which exerts a major influence on health are social affiliations or connectedness. Whether we measure social affiliation in terms of confiding relationships, number of friends, or involvement in community life, the research shows that they are all powerfully protective of health (19, 20). Because studies have excluded people who were ill at the start of follow-up and related initial social connectedness with later illness, we can be sure that this is not simply a reflection of the way illness restricts social life. Even healthy volunteers given the same measured exposure to cold viruses are very much less likely to catch colds if they have more friends (21). (Because these experiments controlled for pre-existing antibodies to colds, we can also be sure the findings are not simply a reflection of the fact that more sociable people are likely to have encountered, and developed resistance to, more strains of cold viruses.)

Lastly, a powerful influence on health throughout life is stress in early life. Both pre- and post-natal stress are associated with worse health in later life. Several physiological pathways are involved: for example, maternal stress during pregnancy leads to high fetal cortisol levels and lower birth weight – both associated with worse health in later life (22, 23, 24).

The health effects of stress in infancy seem to be the biological side of processes related to poor attachment, lack of stimulation, and domestic conflict (24) which child psychologists have always told us are powerful influences on later personality development. Indeed, it is now clear that life-long stress responses are tuned by early experience, so that people who have had a difficult early childhood are more stressed, more likely to have a faster age-rise in blood pressure, and are less healthy in later life (25).

If these three major health risk factors – low social status, weak social affiliations and early stress – are indeed the most important psychosocial risk factors, and their health impact hinges on the extent to which they cause chronic stress, then it suggests that these are the most important sources of chronic stress in modern affluent societies (7). That is an important point to bear in mind.

There is however something else we can learn from the prominence of these causes of chronic stress. Not only are they intensely social, but they seem to be pointing to a common underlying source of stress to do with our insecurities about how others see us and to our anxieties about negotiating social interactions. The insecurities which we may bring with us from early childhood are surely related to the insecurities which can come from low social status. We use similar words – like insecurity – for both, both are associated with higher cortisol levels, and some studies suggest an interaction effect so that one can exacerbate – or offset – the effects of the other (7). Friendship fits into the

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same picture because friends provide positive feedback; they give you confidence that you are liked, your friends are people who accept you, find you interesting, laugh at your jokes and appreciate you. If, on the other hand, you lack friends and feel excluded, or start to wonder why people seem to shun your company and do not include you in invitations, you become filled with self-doubts and anxieties. You fear they find you boring, gauche, unattractive, stupid or whatever. We all know these kinds of self-doubts only too well, and we know how sharply they contrast with the pleasure of feeling confident that we are appreciated. We know how specially welcome it often is when we feel something we have done is appreciated, particularly by someone of higher status than ourselves.

Central to what we mean when we say that humans are reflexive, social beings, is that we know ourselves partly through each other's eyes. We monitor other people's reactions to us so closely that we sometimes experience ourselves almost as we imagine they experience us. Remember the stomach-tightening feelings of shame and embarrassment – almost self-loathing – when we feel we have made ourselves look foolish in others eyes. This monitoring of other's reactions to us is not only essential for impression management – so that we know when we are in danger of making someone angry; it is also essential to guide a great deal of the imitative learning and conformity which is central to our dependency on a learned way of life.

Our three psychosocial risk factors for poor health seem then to be telling us about one central underlying source of social anxiety which lies at the heart of how we negotiate

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social relationships. It is to do with our constant doubts and need for affirmation that we have honed ourselves into what others recognize as capable, attractive and successful human beings. If this interpretation is right, then it fits well with what many of the great sociologists – from Goffman to Bourdieu – have argued is the main gateway through which we become susceptible to social influence and are socialized. But it is not only how society gets into us to shape our behavior, it is also how it gets under the skin to affect our health biologically.

What is likely to be an inherited attentiveness and sensitivity to social status is sometimes easier to appreciate at one remove – by looking at dominance behavior in non-human primates. It is hard not to anthropomorphize descriptions of animal dominance behavior such as this from de Waal and Lanting (26):

“Chimpanzees go through elaborate rituals in which one individual communicates its status to another. Particularly between adult males, one male will literally grovel in the dust, uttering panting grunts, while the other stands bipedally performing a mild intimidation display to make clear who ranks above whom.” (p.30)

The importance of status for human beings has long been recognized. Just as dominance hierarchies among animals are about the power to gain prior access to scarce resources, in human beings access to scarce resources has become a marker of status. Indeed, writing in 1759, Adam Smith described it as one of the main driving forces behind economic activity. In a section of his *Theory of the Moral Sentiments* (27) headed “Of the origin of Ambition, and of the distinction of Ranks” he said:-

...what is the end of avarice and ambition, of the pursuit of wealth, of power, and pre-eminence? Is it to supply the necessities of nature? The wages of the meanest

labourer can supply them. ...What then is the cause of our aversion to his (the labourer's) situation, and why should those who have been educated in the higher ranks of life, regard it as worse than death, to be reduced to live...upon the same simple fare with him, ...and be clothed in the same humble attire? Do they imagine that their stomach is better, or their sleep sounder in a palace than in a cottage? ... From whence, then, arises that emulation which runs through all the different ranks of men, and what are the advantages (of) ...that great purpose of human life which we call bettering our condition? To be observed, to be attended to, to be taken notice of with sympathy, complacency, and approbation... The rich man glories in his riches... The poor man, on the contrary, is ashamed of his poverty..." (Part I, Section III, Chapter II)

Several modern economists, such as Robert Frank (28) and Juliet Schor (29) have written eloquently about the importance of status competition and the desire to maintain appearances, as driving forces fuelling the desire to consume. It is shown most obviously in the premium people will pay for labels which indicate almost nothing more than that the item was expensive. The stigma of poverty is of course part of this picture. Once again, Adam Smith (30) showed a clear grasp of the psychological impact of relative poverty when he said:

"By necessities, I understand not only the commodities which are indispensably necessary for the support of life, but what ever the customs of the country renders it indecent for creditable people, even the lowest order to be without. A creditable day labourer would be ashamed to appear in public without a linen shirt." (p.383)

More than any increase in physical discomfort associated with relative poverty today, what gets to people most and is most wounding, is what lower levels of consumption say about you. Second rate goods seem to indicate second rate people. After pointing out that "The world's most primitive people have few possessions, but...are not poor", the anthropologist, Marshal Sahlins said:

“Poverty is not a certain small amount of goods, nor is it just a relation between means and ends; above all it is a relation between people. Poverty is a social status. As such it is an invention of civilization. It has grown with civilization...as an invidious distinction between classes....” (31) p. 37

Given that health and violence share a similar relationship with inequality, does this cast any light on why violence is more common in more unequal societies? Interestingly, if you look at the literature on violence, there is a great deal to suggest that the most frequent trigger to violence is disrespect, loss of face and people feeling looked on. Before becoming Director of the Center for the Study of Violence at Harvard, James Gilligan spent more than 25 years as a prison psychiatrist talking to violent men almost daily. In his writing (32) he emphasizes this point about the triggers to violence:-

“...prison inmates ... have told me repeatedly, when I asked them why they had assaulted someone, that it was because ‘he disrespected me’, or ‘he disrespected my visit’ (meaning ‘visitor’). The word ‘disrespect’ is so central in the vocabulary, moral value system, and psychodynamics of these chronically violent men that they have abbreviated it into the slang term, ‘he dis’ed me’.” p.106

A few pages further on he goes as far as to say:-

“I have yet to see a serious act of violence that was not provoked by the experience of feeling shamed and humiliated, disrespected and ridiculed, and that did not represent the attempt to prevent or undo this “loss of face” - no matter how severe the punishment...” p.110

This view is not merely one shared by psychiatrists talking about violence in prison.

Writing autobiographically of his own involvement in street violence, Nathan McCall

(33) said:

“Some of the most brutal battles I saw in the streets stemmed from seemingly petty stuff... But the underlying issue was always respect. You could ask a guy, ‘Damn, man, why did you bust that dude in the head with a pipe?’ And he might say, ‘The motherfucker disrespected me!’

“That was explanation enough. It wasn’t even necessary to explain how the guy had disrespected him. It was universally understood that if a dude got disrespected, he had to do what he had to do. It’s still that way today. Young dudes nowadays call it ‘dissin’”. (p.52)

Where there is greater inequality, more people will be deprived of the jobs, incomes, housing and cars which are the markers of status. Vulnerable to the humiliation of relative poverty, they will be particularly sensitive to feeling disrespected and looked down on and unwilling to ignore incidents which appear to involve a loss of face. How direct the links are with inequality can be seen from an account of the changing character of social relations in Rotherham, a town in the English industrial Midlands. It once had a fairly coherent social life based on coal mining and steel, but with the decline of these industries and rising unemployment, the character of street life changed dramatically. In the words of one of Simon Charlesworth’s informants:

“It’s just gettin’ worse an’ worse round here. Rotherham’s just dog rough now, it’s fuckin’ dog rough man. All you get...is people eyein’ yer all time and a lot of ‘em aren’t hard at all, ‘cos hard doesn’t have to bother. ...who wants to live with every time yer go out of the door some fucker’s lookin’ at yer? There’s this bloke on our street..., parks his (car) there and he eyes me out all time. One of these days his goin’ t’ catch me in a bad mood and I’m gunna ...ask him what his problem is. ... There’s something wrong with ‘em, they’re not right in the head. There’s just more and more fuckin’ weirdo’s about. You’ve got to keep yourself fit an’ strong, and you’ve fuckin’ got to be able to fight because more an’ more now it’s comin’ down to that ‘cos it’s the only thing these wankers respect. I mean if they know yer ‘andy and they know you’ve got hard friends – (John’s) popular just cos he’s fuckin’ hard, he’s respected and it’s all there is for us now. They walk past yer and they stare at yer and first to look away is the weaker one and once they see you as weak, then you’re a target to ‘em. Unless they know you’ve got heavy friends. ... It’s fuckin’ rough.” (34) p.206-7

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To summarize, the increase in violence associated with greater inequality is part of a broader shift in the nature of social relations. We can make societies more or less hierarchical, stretching them out vertically by making them more unequal, or horizontally by making them more equal. Which we do has a profound effect on the quality of social relations. Greater equality makes them less violent, strengthens community life and increases trust, whereas increasing inequality leads to a deterioration in the quality of social relations.

If, however, we are to understand these links more fully, we need to ask why inequality, or social hierarchy, is so antithetical to better social relations and to community life?

They are not only antithetical as they move in opposite directions in society as a whole – so that as hierarchy increases social relations deteriorate – but they are also opposed as risk factors for individual health: while social affiliation and friendship are highly protective of health, low social status, like inequality at the societal level, is harmful to health.

What links these two, as opposites, in two such different ways? The answer is that social status and friendship are, in effect, two sides of the same coin. Social status (like dominance hierarchies and pecking orders among animals) are orderings based on power, coercion and privileged access to scarce resources regardless of the needs of others. In contrast, friendship is based on social obligations, on reciprocity, mutuality, sharing and recognition of each other's needs. So social status and friendship are linked as two opposite forms of human relation. They are the two opposite extremes of how people can

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come together: either on the basis of power, so the strongest gets the lions share, or on the basis of cooperation and a recognition of each others needs.

Why these issues continue to have such a hold over us is that they are directly related to what is perhaps the most fundamental social problem that most animal species have to solve. For members of almost any species, the worst competitors are not other species, but other members of the same species. Other kinds of animals might compete with us for one or two foodstuffs, but other members of our own species have all the same needs and so are potentially rivals for almost everything. We may compete for food, shelter, jobs, sexual partners, clothing, a comfortable place to sit – everything. It was this potential for conflict which was at the basis of Hobbes’ political philosophy (35). It was why he thought life without a sovereign power to keep the peace would be “nasty, brutish and short”, and why he believed “every man is Enemy to every man”.

But human beings also have, perhaps to a unique degree, the potential to be each other’s best source of cooperation, assistance, help, love, and learning. In effect, other people may be our most awesome rivals or our best source of help and assistance. Depending on the nature of our social relationships, other people can be the best or the worst.

How has this affected social organization? During 90 or 95 percent of our existence as “anatomically modern” human beings, we lived in remarkably egalitarian hunting and gathering societies, based on gift exchange and food sharing. A review (37) of the literature from over 100 anthropological accounts of some 24 recent hunter and gatherer

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societies spread over four continents, concluded that these societies were marked by “Egalitarianism, cooperation and sharing on a scale unprecedented in primate evolution” (p.140). “They share food, not simply with kin or even just with those who reciprocate, but according to need even when food is scarce.” (p. 142)

“There is no dominance hierarchy among hunter-gatherers. No individual has priority of access to food which...is shared. In spite of the marginal female preference for the more successful hunters as lovers, access to sexual partners is not a right which correlates with rank. In fact rank is simply not discernible among hunter-gatherers. This is a cross cultural universal, which rings out unmistakably from the ethnographic literature, sometimes in the strongest terms.” (p. 144)

Writing about the egalitarianism of these societies and the predominance of gift exchange and food sharing, Sahlins (31) suggested that these institutions were a response to the Hobbesian potential for conflict. To avoid the awful potential for conflict and gain instead the benefits of cooperation, the institutions of gift exchange and food sharing functioned as a way of keeping the peace, of keeping social relationships sweet. Indeed, Sahlins pointed out how the gift, and the sense of indebtedness which prompts reciprocation (which many evolutionary psychologists regard as a human universal (37)) serves almost as a primitive social contract. In Sahlins’ words, “Gifts make friends and friends make gifts” because the gift expresses a recognition of each others needs and is a rejection of competition for scarce resources.

It is because issues to do with the contrast between social alliances, cooperation and friendship on one hand, and dominance and social status on the other, have always been crucial to our material well-being that they have become so engrained in our minds. We have highly developed social strategies for developing social alliances, for friendship and

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cooperation, and we have equally well developed strategies for trying to improve our position in dominance hierarchies – including discriminating against those below us (7). How much we use one and how much we use the other depends on the nature of the social environment we have to deal with. The more hierarchical and unequal the social environment, the more we are forced to use dominance strategies.

Fundamentally, little of this is genuinely new. Rather, the picture emerging from social epidemiology and research on violence and inequality is a rediscovery of a truth which many people once recognized intuitively. Hard data and statistical analysis now show that inequality is indeed socially corrosive. The essentials were surely contained in the demand of the crowd in the French Revolution for “liberty, equality and fraternity”. These dimension of the social environment map directly onto the issues we have discussed. By Liberty, they didn’t mean consumer choice or anything like that. They meant not being subservient to the landed aristocracy and feudal nobility. They were talking about social status differences, not being beholden, or subordinate, to anyone. Taking a gender-neutral view of fraternity takes us straight into the quality of social relations and our need for social affiliations, friendship and social cohesion. And, equality comes in as the pre-condition for getting the other two right. Too much inequality and you create problems of low social status and inferiority. Too much inequality and the quality of social relations deteriorates.

What is perhaps new, and important to bear in mind, is that the relationships discussed here do not depend on contrasting the scale of inequality we see round us with some

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utopian, unreachable, perfect equality. All the analyses have been analyses of the effects of the small differences in inequality that exist between different developed market democracies, or between different states of the USA. The message is that even small differences matter.

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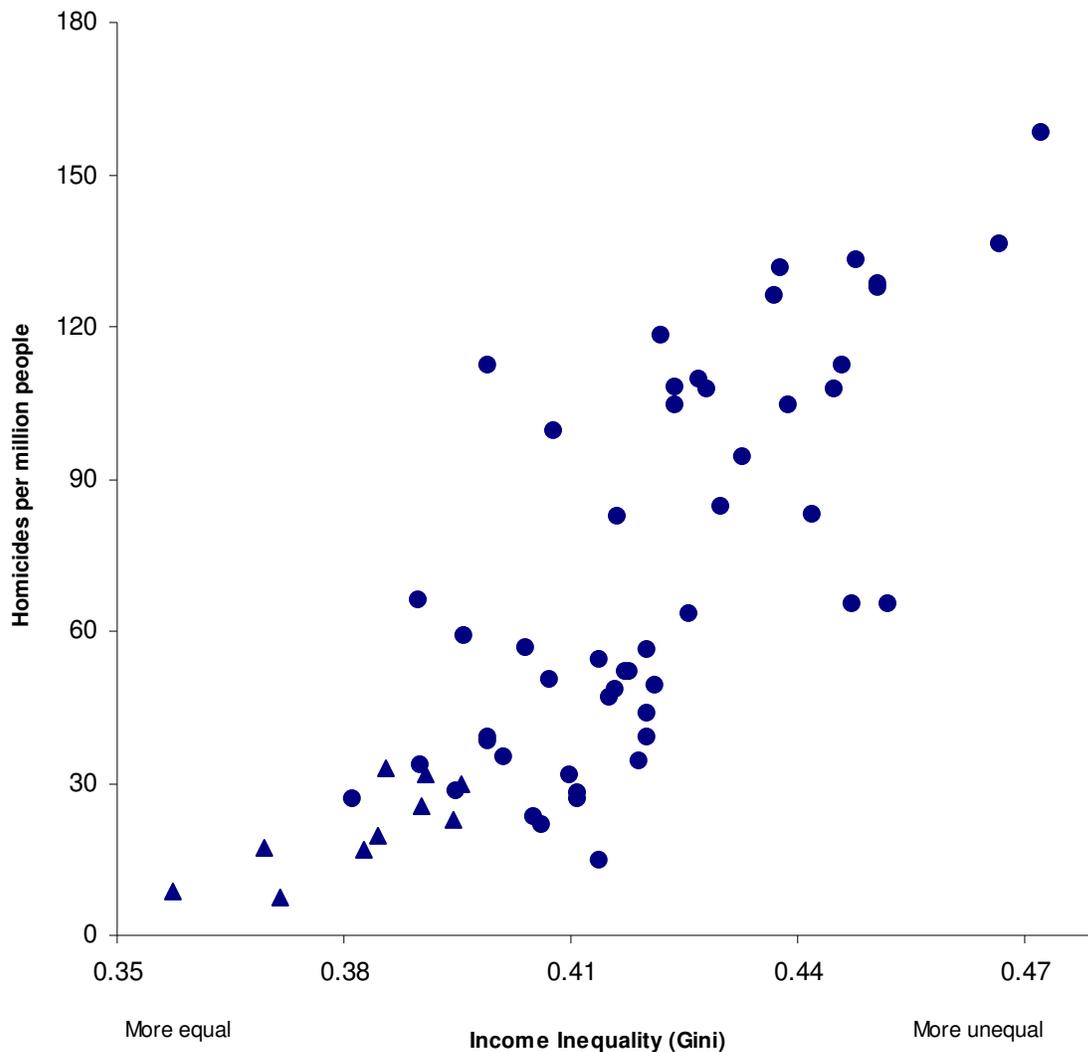
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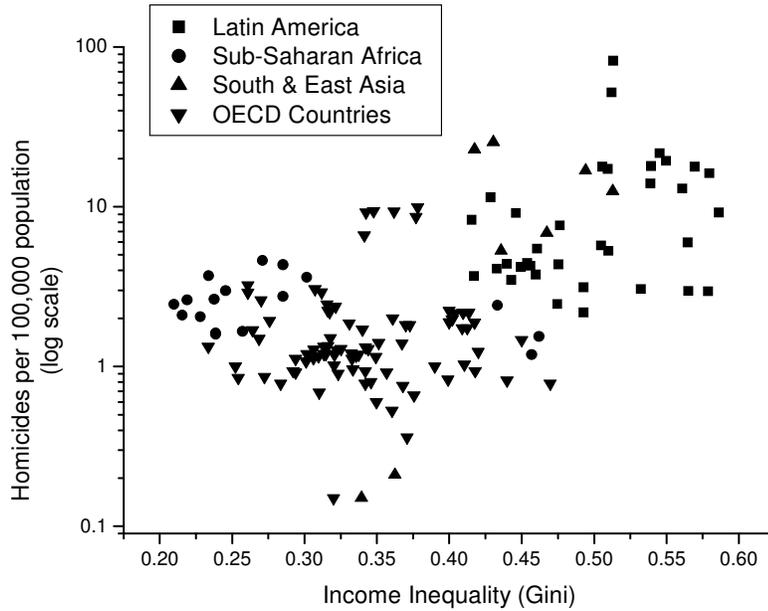
Figure 1: Homicide rates in relation to income inequality:
among US States and Canadian Provinces



Homicide is more common in more unequal US states (squares) and Canadian Provinces (triangles). Bigger income differences are to the right.

Source: Daly M, Wilson M, Vasdev S. Income inequality and homicide rates in Canada and the United States. *Canadian Journal of Criminology* 2001; 43: 219-36.

Figure 2: International relation between homicide and income inequality



Homicide rates are higher in countries in which income differences are larger (shown to the right). Relationships like this have been demonstrated 40-50 times.

Source: Fajnzylber P, Lederman D, Loayza N. Inequality and violent crime. *The Journal of Law and Economics* 2002; 45 (1): 1-40.