An Exchange Theory of Social Justice

A "Gains from Trade under Uncertainty" Perspective

ANTHONY GILL

On the Island of Despair, Robinson Crusoe has little practical concern for social justice until Friday comes along. Once Friday arrives, both he and Crusoe face two important decisions. First and foremost, should they interact with one another?[1] Second, if they agree to interact, how will the benefits (and costs) of those interactions be distributed between them? The second question depends on the first: if either party *freely* chooses *not* to interact, no exchange occurs, and there are no gains from trade to be divided. If the first question is answered in the affirmative, then the second question comes into play, and issues of social justice arise. What is the most socially just distribution of the surplus that accrues from trade? Should the gains from trade be distributed equally between the two, or shall one party receive more of the net benefits than the other? If one party does receive more of the benefits, will this unequal condition persist over time, or might the gains eventually equalize?

Anthony Gill is professor in the Department of Political Science at the University of Washington.

1. I beg the reader for my poetic license here, acknowledging that Crusoe first sees Friday being attacked by cannibals and decides to rescue him, thus putting Friday in a position of owing his life to Crusoe and, one might say, "thankful subordination." Nonetheless, economists have often used the Crusoe/Friday example as a metaphor for a simplified economy to develop notions of trade (see Buchanan [1975] 2000, 188–20; Varian 2014, 628–32). I thank Robert Whaples for this insight.

The Independent Review, v. 24, n. 1, Summer 2019, ISSN 1086–1653, Copyright © 2019, pp. 131–144.

And if the net benefits from interaction do equalize, how is this accomplished—via voluntary action or coercion? Although the Crusoe–Friday scenario is hypothetically simple, answers to these questions have implications for larger societies and shape the way we coordinate anonymous (and quasi-anonymous) trade, raising the question what the most socially just means of coordination is.

This essay addresses these questions and argues that social justice should not be conceived in terms of distributional outcomes due to the uncertain and changing nature of individual preferences. Such uncertainty clouds the process of negotiating gains from trade between individuals, both in the short term and the long term. Concepts of social justice that rely on precise distributional outcomes of resources, in particular material wealth, increase the likelihood of potentially unjust misallocations because of the innate difficulty in gauging the diverse and changing preferences of individuals. Rather, I argue that social justice within a world of ambiguity and change should rest upon providing the greatest number of opportunities for individuals to exchange (or refuse to exchange). This conceptualization of social justice, although rooted in distributional concerns, rests upon a procedural definition of interaction as opposed to an outcome-based notion. Although not a comprehensive vision of what social justice entails, this perspective represents an important part of the discussion. Due to space limitations, this essay does not examine directly broader conceptualizations of social justice that encompass obligations and duties,[2] though the framework presented does suggest possible avenues for future exploration in those areas.

A Restrictive Notion of Social Justice

Defining social justice comprehensively is no easy task. Numerous definitions exist, ranging from those emphasizing equality of opportunity to others favoring equality of outcome. The point of this essay is to demonstrate that a distributive concept of social justice resting upon equality of outcome (or "fairness") is difficult, if not impossible, under situations of diverse preferences and uncertainty. Although equity is a noble goal, efforts by a third-party government to reduce inequity in distribution may lead to inefficient and less-equitable outcomes than those that emerge from voluntary trade over time. I argue that social justice instead rests upon the ability to *search and discover* fair outcomes in a world characterized by uncertainty and constant change (with respect to both preferences and prices). Although an optimal degree of distributional fairness might not obtain under this process-driven definition of social justice, opportunities to search and discover the terms of trade are better able to adjust to changing preferences

2. One can imagine an obvious critique of the first question facing Crusoe and Friday. If Friday comes upon an incapacitated Crusoe who needs assistance (e.g., water to avoid dying of thirst), is it Friday's moral duty to provide such aid even if Crusoe is unable to agree to assistance? An earlier draft of this essay addressed this question, but space considerations make it necessary to hold this question aside for now.

and prices and will tend to converge toward distributional justice even if never reaching it.

To make this argument, I begin by conceding that the notion of social justice has a distributional component that relies on two criteria. First, social justice requires a Pareto efficient set of interactions such that no person is made worse off in a bilateral interaction. Admittedly, this restrictive assumption sets aside issues of negative externalities imposed on third parties. It also ignores matters of public goods and public choice (i.e., voting). If a theory of social justice cannot apply in situations of bilateral exchange, it will have difficulty with multilateral (cooperative) exchange. The goal of distributional justice in a large society of diverse preferences is quixotic in that any type of public choice (including those designed to provide pure public goods) will result in some individuals being made worse off. The second criterion is that distributional justice increases as the gains from trade within a bilateral interaction tend toward equitable distribution. The distribution need not be perfectly equal, but our chosen institutional structure—be it market or government—should push the distribution in that direction. This criterion sits with the commonsense notion of "share and share alike" taught to children and emphasized in distributive versions of social justice (e.g., Rawls 1971). Granted, the "share and share alike" principle is not a market mechanism but is taught to children in a top-down hierarchical structure known as the family (or school system). However, individuals do take this inculcated norm into the marketplace at some point and to some extent.

This restricted definition subsumes the notion that individuals have equal rights in terms of free choice and property, a criterion that is impossible to satisfy in reality given differences in individuals' capabilities and existing sociopolitical institutional structures. It is an ideal, but one that serves to advance the discussion. The latter realization leads to a pessimistic conclusion that pure and lasting social justice can never be reached, but our quixotic search for social justice can at least be tempered by the goal of continually searching for better solutions among potential horrible ones.

Justice with Known Reserve Prices

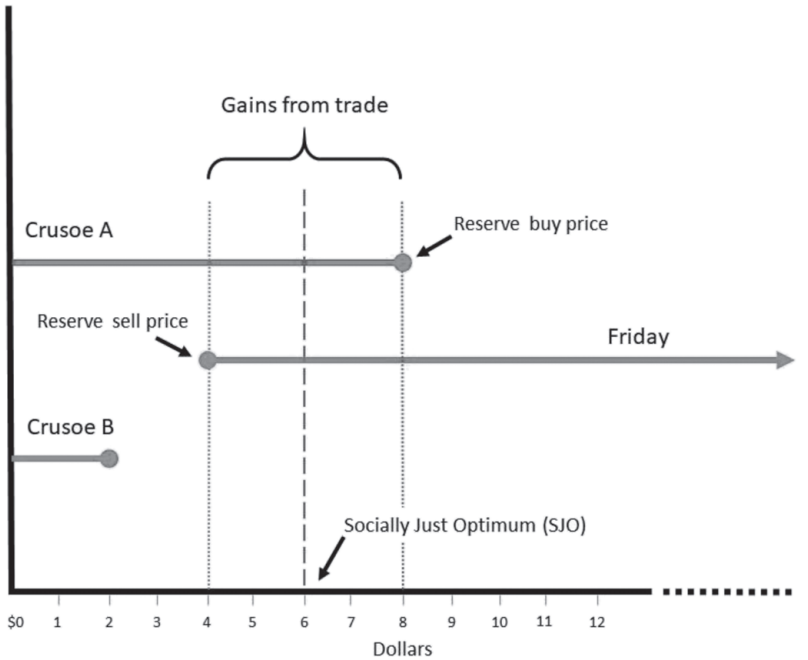
Let me begin my examination of social justice from an exchange perspective by returning to Crusoe and Friday, remembering that they have two sequential choices to make: (1) whether to engage in exchange of goods, services, or time;[3] and (2) upon agreeing to exchange, how to share the costs and benefits of their transactions. Examining the gains from trade provides us leverage on how these choices are made and to

3. Economics is typically taught to students with the examples of exchanges of goods (e.g., bushels of wheat) or services (e.g., insurance protection). However, a more expanded understanding of economics includes any sort of exchange, such as a willingness to spend time with another person (see, e.g., Becker 1973). There are opportunity costs, not to mention declining marginal utility calculations, associated with the choice of spending time with a friend over coffee. For our two islanders—Crusoe and Friday—the first economic decision they must make is whether to spend the time to interact with one another at all.

what extent they are just. Gains from trade (i.e., consumer and producer surplus) can accrue if two parties have overlapping reserve prices for buying and selling. A reserve buy price is the highest price someone will pay to receive some good or service. Alternatively, a reserve sell price is the lowest price an individual will accept to part ways with his produce. Reserve prices reflect an individual's willingness to transact with another person and help answer the first choice facing Crusoe and Friday. Reserve sell prices set higher than a buyer's reserve buy price implies the two individuals will choose not to interact. If I refuse to pay more than $500,000 for a house, I will not enlist an agent selling million-dollar mansions. Forthwith, a person with an infinitely high reserve price is destined to become a hermit, a Crusoe who turns his back on Friday.

For rhetorical simplicity, figure 1 presents the gains from trade between two individuals, Friday and Crusoe. Friday is willing to sell a fish at a minimum price of $4 to Crusoe. As a thinly rational individual, Friday will accept any offer higher than that amount. At any price lower than $4, Friday would choose not to trade with Crusoe. Now assume two different preference states for Crusoe, A and B, which may be the same individual at different times. Crusoe A, with a higher reserve price, desires fish more than Crusoe B does. Crusoe in general (A or B), being thinly rational, would prefer to receive the fish at a zero price, but Crusoe A is willing to spend up to $8 for the fish, whereas Crusoe B (who is in less of a mood for seafood) would offer $2 at most. In the case of B,

Figure 1
Social Justice Optimum with Known Reserve Prices



the reserve buy price for Crusoe ($2) is lower than Friday's reserve sell price ($4); thus, in this situation the two individuals would refuse to interact with one another and go their separate ways. Forcing Crusoe B to buy the fish at $4 or Friday to sell the fish at $2 would impose a cost of $2 on either party with no corresponding gain to their two-person society. A world with a net loss of utility resulting from a forced transaction would seem, under common sense and according to the criteria annunciated earlier, to be socially unjust.

If we are dealing with Crusoe A, however, any exchange between $4 and $8 would yield a net benefit of $4—the difference between Crusoe A's reserve buy price and Friday's reserve sell price. The question arises as to how the $4 in gains from trade will be divided. The most equitable option would be a sale price of $6, wherein each party captures $2 of the surplus. I define this point as the Social Justice Optimum (SJO), wherein society is better off and all gains are distributed equally, perfectly meeting both criteria of the earlier definition. Movement away from the SJO, either toward the seller or toward the buyer, but within the overlap of reserve prices, remains just in that both parties are benefitting, albeit not equally. A sale price of $7 provides Friday with $3 in gains from trade, leaving Crusoe with $1 in surplus; both parties are better off than had the trade not occurred, albeit Friday is benefitting more. To summarize, any transaction resulting in gains from trade is socially just (see Munger 2011), and an equitable distribution of the surplus represents optimum social justice because it satisfies the criteria of Pareto improvement *and* equality.

If reserve prices are clearly known and truthful, if participants are free to negotiate, and if a repeated relationship is anticipated or desired, the exchange may gravitate toward the SJO (i.e., evenly split surplus). If one party (Friday) desires to have an ongoing relationship with the other (Crusoe), he will gladly offer his fish at a price at or lower than the $6 SJO as a way to signal that he is a generous merchant worthy of continued interaction. Consider the commonplace use of "introductory prices" for new customers of a business as a means of reducing uncertainty and building trust (Schlee 2001). The other party (Crusoe), however, should also signal generosity and exchange at a price at or higher than Friday's reserve sell price so as to remind Friday that he is a worthy customer who values good service, a situation reminiscent of tipping to ensure future personalized service at a tavern (Gill 2018). With both individuals trying to signal generosity and given that negotiating imposes transaction (time) costs, it is rational simply to split the surplus equally.[4] If transaction costs are high and reserve prices known by all, it also makes sense to split the gains from trade evenly.

From a normative standpoint, ethical codes across a wide array of cultures have emphasized the importance of sharing the fruits of transactions equally (Mauss [1950]

4. It may be the case that one party has a higher utility for signaling generosity and will insist on distributing more of the gains from trade to the other person, but this situation could be construed as one in which individual has a "thicker" preference in the exchange—that is, not merely for fish, but for fish plus "the warm fuzzy feeling of giving" or for fish plus a reputation for generosity among one's broader set of peers.

2000). The Golden Rule, urging individuals to do unto others as they would have others do unto them, is common across religious traditions such as Buddhism (Udānavarga 6:18), Judaism (Leviticus 19:18), Christianity (Matthew 7:12), Islam (An-Nawawi's Forty Hadith 13), and Confucianism (Analects 15:23). Adam Smith ([1790] 1976b) conceived of an "impartial spectator" who guides individuals to think about their decisions as if they were watching the interactions of two other parties in a disinterested manner. The "impartial spectator" observing Friday and Crusoe would expect an equal division of the surplus if reserve prices were transparently known. The anarchist Michael Taylor (1982), building upon the anthropology of primitive tribes, emphasizes the importance of reciprocity within small communities. Brian Skyrms (2014) bolsters Taylor's point by using evolutionary game theory to demonstrate that fair division of resources is an optimal strategy in bilateral, iterated ultimatum and dictator games. In other words, when people choose to interact with one another (the first choice), and future interactions are anticipated, individuals will tend to settle on a fair division of the gains from trade. Repeated, voluntary interactions with known reserve prices will gravitate toward the SJO.

Social Justice under "Large" Societies and Diverse Preferences

To this point, we have examined social justice in a society of only two individuals and under known reserve prices. Admittedly, this society is not a big one; thus, meeting the criterion for the Social Justice Optimum in it would be fairly easy. But what if the society were larger—say, ten thousand people?[5] If the reserve prices of all individuals in this larger nation were identical, known, and truthful, the argument regarding social justice given earlier would hold: the SJO would represent prices that evenly split the surplus for two individuals for any and all transactions. Such a world is a central planner's ideal society in that all equitably just solutions are determined easily.

Alas, several problems arise in larger societies that affect our underlying assumptions and consequent analysis. First, preferences are unlikely to be identical. As population increases, so does the diversity in preferences. Second, discovering these diverse preferences becomes difficult and time-consuming. In other words, the discovery of reserve prices—both buying and selling—becomes increasingly costly. Businesses often invest substantial resources in market research and engage in trial-and-error experimentation to discover individuals' reserve prices and to develop creative ways to price discriminate across different buyer preferences. Consumers, conversely, usually do not invest resources into knowing sellers' reserve prices and frequently have wildly inaccurate notions of various industries' profit rates (Perry 2018). Overcoming

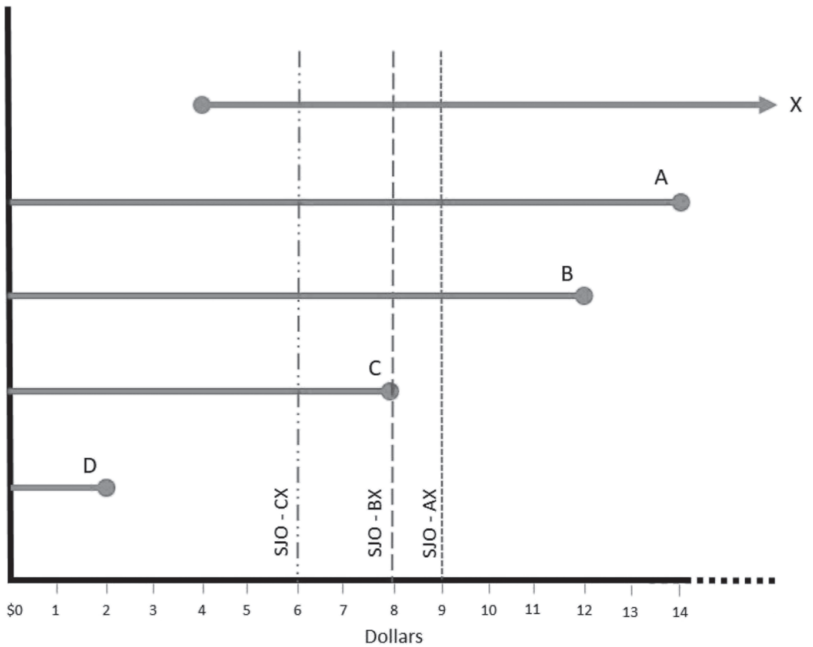
5. In terms of anonymity, societies can become "large" very quickly. The work of the anthropologist Robin Dunbar (1992) on primates, extrapolated to human societies by Malcolm Gladwell (2000, 179–87), indicates that it is possible to know the preferences of only about 150 or so people before significant amounts of anonymity and uncertainty set in.

uncertainty and asymmetric information is one of the biggest challenges facing interpersonal exchange in large economies (Hayek 1945; Akerloff 1970).

A third problem complicates the issue of knowing reserve prices even amid small populations—individual preferences are not stable and may be unknown even to consumers themselves. An individual who prefers fish one day may develop an allergy and despise it the next. Furthermore, when new products and services are introduced, individuals may have only a hazy idea what their reserve prices are for those things. Sellers are in a slightly better position in terms of knowing their own reserve prices given that they deal with reasonably predictable costs (e.g., raw materials, wages). Nonetheless, fluctuating input costs and changes in government policy also generate uncertainty for them. Finally, the aforementioned assumption about truthful reserve prices seems untenable because rational individuals have a proclivity to misrepresent their true reserve price in order to get a better deal in negotiations. Anyone who has negotiated the price of an automobile will attest to this, and sending false signals is often the "art of the deal" in business. Although misrepresentation may affect long-term trustworthiness, situations that shorten time horizons or the ambiguity of being discovered may prompt such behavior. The added complication of not knowing others' time horizons or perceptions of discovery further clouds the ability to ascertain exact reserve prices.

Let us first consider a world of diverse preferences. Figure 2 presents a "large" society consisting of one seller (X) among many buyers with different reserve prices

Figure 2
Social Justice Optimums with Diverse Reserve Prices



(A, B, C, D). Assume that all reserve prices are truthful and known. In this world, the SJO (i.e., equally shared gains from trade) between A and X is $9 because A has a reserve buy price of $14 and X a reserve sell price of $4. Both receive $5 of the surplus. However, if Seller X offers his good only at the price of $9, satisfying the SJO requirement with Buyer A, Buyer B, who has a reserve buy price of $12, will receive only $3 of the surplus, whereas Seller X will capture $5 of it. Moreover, at a seller-offered price of $9, two consumers (C and D) are excluded for capturing any surplus because their reserve buy prices are below this level. Given the known reserve buy and sell prices, there are gains from trade to be made for all transactions between X, on the one hand, and A, B, and C, on the other, but the SJO for transaction AX would yield more surplus for X ($5) than for B ($3) in transaction BX and exclude the Pareto optimal transaction AC from occurring at all.

A Pareto optimal move to include Buyer C into the potential range of transactions by lowering the seller-offered price of $8 would increase the total buyer utility to $34 (the sum of A, B, and C's reserve prices), and Seller X would capture $12 of surplus by selling at $8. The $8 price represents the SJO price for Buyer B in that the gains from trade are equally divided between B and X ($4 each). Granted, at a sell price of $8, Buyer A benefits more than B or C, although all parties are better off (or at least not excluded from a transaction). Both Buyer B and Buyer C may believe that the $8 transaction is an "optimally unjust" situation in that A receives more benefit than they do, even though the $8 transaction is broadly just by the definition given earlier—all parties benefit from the transaction, though not all benefit equally. Remember that we are in a world of known and truthful reserve prices, so this clarity may provoke some resentment in the sharing of gains from trade.

One means of mitigating potential resentment is for Seller X to offer a different price to each buyer based on each one's known and truthful reserve buy prices and to set it at the SJO for each consumer. As such, transaction AX would occur at $9, BX at $8, and CX at $6. Not surprisingly, if this were the case, an incentive for both A and B to misrepresent their reserve prices arises so that they can also get the lower price of $6 and surreptitiously capture more of the surplus. Alternatively, Seller X could modify her product with "ornamental baubles" or other pricing techniques so that there is a little bit of extra added or subtracted value to the good.[6] Of course, doing this would likely result in altering the reserve sell price of the good to the seller because the effort of ornamenting a product is not cost free. Nonetheless, figure 2 provides a theoretical case that the specter of "monopoly pricing" may not be as serious a problem as is commonly assumed by "trust-busting" advocates. A single seller in a world of known, truthful, and diverse reserve prices has an incentive to capture additional profit by modifying offered prices so as to maximize the gains from trade; in such a situation, consumers benefit, and society is better off. Although this outcome may not hit the socially just optimum for

6. Such price discrimination could be achieved by making a routine product "extra special" via a "limited edition," or the seller could set the price to the highest reserve price and then offer coupon discounts.

every individual and, interestingly, may leave more of the surplus to be captured by some consumers, it does yield greater benefit for society as a whole. In other words, free exchange is socially just by Pareto standards, albeit it may not be optimally just by the requirement of perfect equity.

Another manner in which prices can be made to reflect the SJO is to allow competitors to enter the market. Figure 3 represents a world with many competitive sellers, each with a similar reserve sell price. (Only two sellers are presented in figure 3 for the sake of simplicity.) Realizing that gains from trade can be captured with lower prices and with known and truthful reserve prices, sellers such as Y can profit by taking less in the overall gains from trade by catering to those with lower reserve buy prices. Thinly rational buyers who seek to maximize their surplus will gravitate toward the lower sale price (assuming equal transaction costs between buying from X and buying from Y). The standard model of competitive free markets would lead sellers to bid down the price to their reserve sell price, resulting in consumers gaining the most in the gains from trade. Although consumers benefit disproportionately, the exchange still remains socially just. Moreover, any seller wishing to increase his take in the gains from trade has an incentive to innovate in such a way as to lower his reserve sell prices, which generally implies lowering costs by using resources (capital and labor) more efficiently, a Pareto-optimal move for society. This innovation is represented by the dashed lines for sellers in

Figure 3
Gains from Trade with Multiple Sellers and Diverse Buyer Preferences

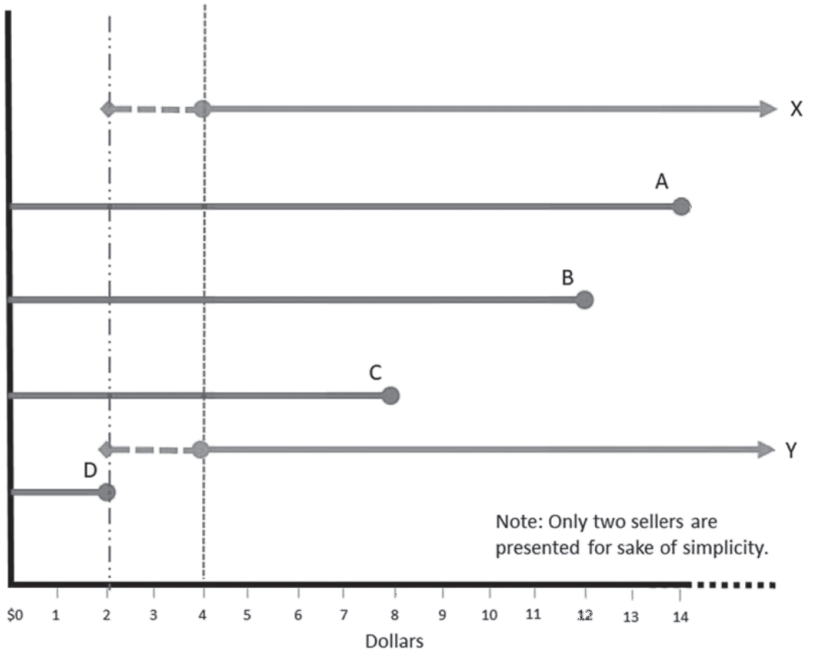


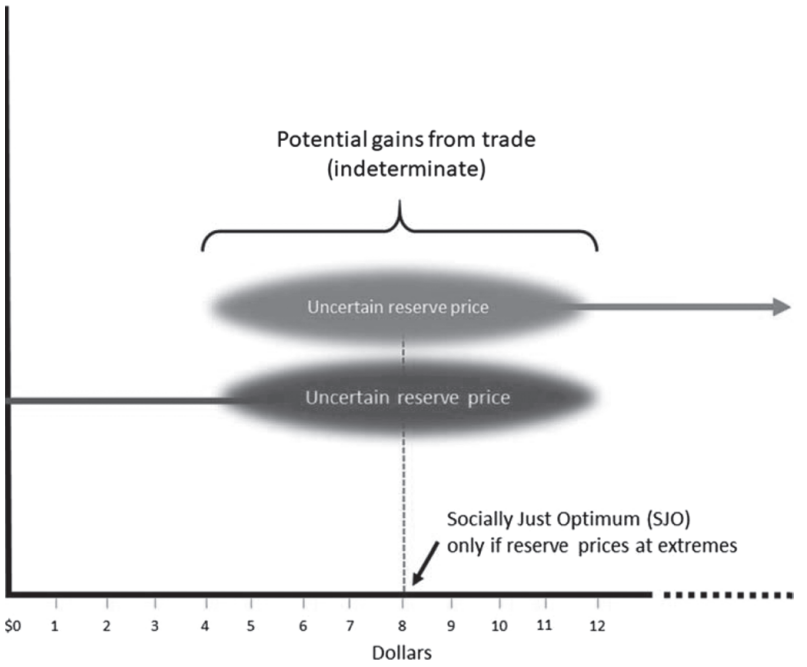
figure 3 and may result in the inclusion of buyers who were previously excluded from market transactions.

The important lesson of figures 2 and 3 is that in a world of diverse preferences (i.e., reserve prices) an equitable division of the gains from trade is unlikely to occur even though everybody will be better off than had trade not occurred at all. Seeking optimal (equitable) fairness is not socially efficient, and if overall wealth is a desired social goal, one need not worry about perfect equity.

Social Justice and Entrepreneurship under Uncertainty

Although diverse preferences in "large" societies complicate the goal of reaching perfect equity even under known and truthful reserve prices, the added problem of uncertainty and change makes the drive toward the SJO even more untenable. Figure 4 presents a world of uncertainty wherein reserve prices are vague and represented by "fuzzy clouds." Buyers facing new products may not have a strong sense of the value of these new things until they try them or see others consume them. Moreover, what might be highly valuable one day (represented within the right side of the "fuzzy cloud"), may be of less desirability another day (the left side of the "fuzzy cloud"). Preferences change, and our desire for ice cream may be much less in the dead of winter than on a hot summer

Figure 4
Gains from Trade with Uncertain Reserve Prices



afternoon. The exact reserve buy price for any consumer exists within that cloud and is constantly shifting, largely unknowable to the seller and perhaps even to the consumer.

The seller's reserve price is slightly less ambiguous, particularly to the seller given the opportunity costs of producing the good. Competition with other sellers in the market also incentivizes each merchant to bid down prices to their lowest level lest the merchant loses sales to rivals. Nonetheless, buyers will not know with any certainty what the seller's lowest possible price is and therefore are unable to evaluate accurately whether they are getting an equal, greater, or lesser share of the surplus.[7] So long as buyers are getting a price at or below their reserve buy prices, they can be happy knowing they are better off than prior to the transaction (or at least not worse off). Perhaps this uncertainty is all for the good in that it may dampen the resentment and envy that arise when buyers believe they are not capturing an equal or greater share of the gains from trade relative to the seller or other buyers. Less envy may indeed be a public good unto itself (see Schoeck [1966] 1987).

What is immediately obvious is that not knowing where any of the consumers' reserve prices are at any given time makes it impossible to set prices at the SJO. In figure 4, setting a price at $8 may be the SJO if the buyer's actual reserve price is $12 and the seller's reserve price is $4 (at the extreme boundaries of the two "reserve price clouds"). However, if the reserve price for either is elsewhere in the "reserve price clouds," there is no guarantee that $8 is the equitable SJO price. In the aggregate, there may be some probabilistic degree of stability, and sellers are constantly trying to determine where to price goods and services via trial and error and other forms of marketing research, particularly with respect to routine and common products where competition is fierce (e.g., whiskey, bread). At best, price setting is educated guesswork, indicating that entrepreneurship may be as much art as it is science (Kirzner [1973] 2013). And while sellers have a difficult time offering an SJO price under conditions of uncertainty, third-party regulators of prices will have an even more difficult time. Efforts to set "socially just" prices for "necessary" commodities during emergencies (e.g., antigouging laws) can easily miss the mark and lead to significant unintended and harmful consequences. Reserve buy prices are most likely to shift upward during times of greater necessity, but they are not likely to shift upward equally for everyone. Although ostensibly designed to favor "needy" consumers, a "socially just" set price that is much lower than every reserve buy price will not incentivize buyers to truly evaluate their need for goods (relative to other consumers in the bidding process) and will prevent sellers from searching for a more optimal price. Gains from trade, at the end of the day, will not go to those who desire them most and who are willing to experiment entrepreneurially to supply them.

With uncertainty and diverse preferences reigning and the near impossibility of determining an SJO price under such conditions, are we left any hope that resources can

7. Part of this uncertainty may be reflected in the common behavior of individuals who feel they are being "ripped off" by a retailer but continue regularly to purchase the product. See Bolton, Warlop, and Alba 2003 for an overview of the perceptions of price fairness.

be allocated justly between individuals in society? First, it is important to realize that so long as voluntary trade occurs and gains from trade are realized, we are achieving justice from an economic-exchange perspective. Under exchange, both parties are benefiting. But with diverse preferences and uncertain knowledge of reserve prices, is it possible to reach the Social Justice Optimum of equitably shared gains? If the goal is exactitude in equity, the answer is no, particularly over the long term. However, given that under known and truthful reserve prices, buyers and sellers will tend toward the SJO, it seems reasonable to assume that these individuals will also look for opportunities to search for and discover equitable distributions. This locates the notion of social justice in the process-driven realm of institutional opportunities and incentivized entrepreneurship.

As Adam Smith notes, humans have a "propensity to truck, barter, and exchange" ([1776] 1976a, 25). The opportunity to barter and exchange opens the possibility for experimentation for both buyers and sellers. Not only does such opportunity extend the market, a primary concern for Smith ([1776] 1976a), but the ability to interact freely allows negotiation over the gains from trade and allows both buyers and sellers to determine the most just prices for themselves based on changing conditions. Attempts to regulate and set rigid prices eliminate the ability to experiment and negotiate. Under uncertainty about reserve prices and in a world of changing and diverse preferences, cementing one specific price in place eliminates the possibility of adjustment toward the SJO (even if it can never be reached). Notions of social justice that are rooted in a particular equitable distribution quixotically chase a benchmark that doesn't exist or, at least, doesn't last for long. Rather, it is the opportunity to search and discover, to barter and exchange, and to explicitly and implicitly negotiate that allows society to strive for social justice. The opportunity to exchange, in other words, is the pathway for Crusoe and Friday and for all those who follow them to turn the Island of Despair into one of mutual prosperity.

Conclusion: A Framework for Broader Considerations

As noted at the outset, the space allowed for this essay makes it impossible to cover every aspect of social justice. I have focused here on one small component of the broader concept—the distribution of social wealth (as derived from the gains from trade) and the opportunity to discover equitable and voluntary allocations in a world of diversity and uncertainty. Any theory of social justice that is interested in finding beneficial allocations must primarily take into account the freedom to discover an ever-changing and uncertain optimum. The freedom to search, experiment, discover, and negotiate is part of a necessary process that cannot be divorced from the eventual distribution. By ignoring liberty and the discovery process, and by advocating institutions designed to determine a preordained distribution of goods and services at any point in time, change and uncertainty will undoubtedly lead society away from a Socially Just Optimum as gains from trade are reshuffled.

The emphasis here on the gains from trade between buyer and sellers admittedly excludes important considerations such as the provision of public goods. Although public goods are conceived of in collective terms rather than in terms of bilateral exchange, the gains-from-trade perspective allows us to think about how the cooperative provision of such goods benefits individuals in different ways. It should be noted that not all individuals benefit equally from a public good despite the criteria of nonexcludability and nonrivalness. The individual who owns more property benefits more from the public good of "law and order" than someone who is destitute or has the skills of larceny. Thinking about the diverse and uncertain reserve prices individuals have for public goods sheds light on how to distribute possible contributions to the commonweal. This exchange perspective can also provide insight into concerns over duty and obligation, in particular our social responsibility to individuals who have high reserve buy prices but who lack resources that exclude them from obtaining necessary goods such as food and shelter. A focus on exchange and reserve prices sheds light on the potential facts that not all individuals in need have the same preferences and that trying to promote means of discovering varying reserve prices for different life necessities will help allocate resources in a more efficient and just manner. An entrepreneurial market for charity is best for rescuing individuals from the Island of Despair.

References

Akerloff, George A. 1970. The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *Quarterly Journal of Economics* 84, no. 3: 488–500.

Becker, Gary. 1973. A Theory of Marriage: Part I. *Journal of Political Economy* 81, no. 4: 813–46.

Bolton, Lisa E., Luk Warlop, and Joseph W. Alba. 2003. Consumer Perceptions of Price (Un)Fairness. *Journal of Consumer Research* 29, no. 4: 474–91.

Buchanan, James M. [1975] 2000. *The Limits of Liberty: Between Anarchy and Leviathan*. Indianapolis, Ind.: Liberty Fund.

Dunbar, Robin. 1992. Neocortex Size as a Constraint on Group Size in Primates. *Journal of Human Evolution* 22, no. 6: 469–93.

Gill, Anthony. 2018. An Economic and Pedagogical Defense of Tipping. *Journal of Private Enterprise* 33, no. 1: 79–102.

Gladwell, Malcolm. 2000. *The Tipping Point: How Little Things Can Make a Big Difference*. Boston: Little, Brown.

Hayek, F. A. 1945. The Use of Knowledge in Society. *American Economic Review* 35, no. 4: 519–30.

Kirzner, Israel M. [1973] 2013. *Competition and Entrepreneurship*. Indianapolis, Ind.: Liberty Fund.

Mauss, Marcel. [1950] 2000. *The Gift: Forms and Functions of Exchange in Archaic Societies*. Translated by W. D. Halls. New York: Norton.

Munger, Michael. 2011. Euvoluntary or Not, Exchange Is Just. *Social Philosophy and Policy* 28, no. 2: 192–211.

Perry, Mark J. 2018. The General Public Thinks the Average Company Makes a 36% Profit Margin, Which Is about 5X Too High. Part II. *Carpe Diem,* AEI, January 15. At http://www.aei.org/publication/the-public-thinks-the-average-company-makes-a-36-profit-margin-which-is-about-5x-too-high-part-ii/?fbclid=IwAR2uDo6IMYSoqMYzG9hxUH7mqXG9I2MIHF7VZ36-w9qty2tdKvC2XtWTKD8

Rawls, John. 1971. *A Theory of Justice*. Cambridge, Mass.: Harvard University Press.

Schlee, Edward E. 2001. Buyer Experimentation and Introductory Pricing. *Journal of Economic Behavior & Organization* 44, no. 3: 347–62.

Schoeck, Helmut. [1966] 1987. *Envy: A Theory of Social Behavior*. Indianapolis, Ind.: Liberty Fund.

Skyrms, Brian. 2014. *Evolution of the Social Contract*. Cambridge, U.K.: Cambridge University Press.

Smith. Adam. [1776] 1976a. *An Inquiry into the Nature and Causes of the Wealth of Nations.* Indianapolis, Ind.: Liberty Fund.

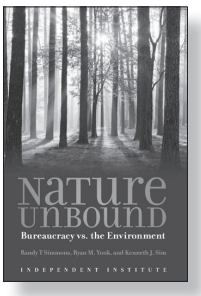
———. [1790] 1976b. *The Theory of Moral Sentiments.* Indianapolis, Ind.: Liberty Fund.

Taylor, Michael. 1982. *Community, Anarchy, & Liberty*. Cambridge, U.K.: Cambridge University Press.

Varian, Hal R. 2014. *Intermediate Microeconomics: A Modern Approach*. 9th ed. New York: Norton.

"***Nature Unbound*** will provide the critical, innovative, and careful evaluation so needed to raise issues and encourage debate over environmental issues, which hopefully will lead to more reasoned addressing of environmental concerns."

—**Gary D. Libecap**, Donald Bren Distinguished Professor of Corporate Environmental Management, Bren School of Environmental Science and Management and Department of Economics, University of California, Santa Barbara



Nature Unbound

Bureaucracy vs. the Environment

By Randy T Simmons, Ryan M. Yonk, and Kenneth J. Sim

304 Pages | Hardcover: $36.95 | Paperback: $22.95

In ***Nature Unbound***, authors Randy T Simmons, Ryan M. Yonk, and Kenneth J. Sim offer a devastating critique of federal environmental policy by scrutinizing it through the lenses of biological ecology and political ecology. Their work makes us rethink environmental objectives, aligns incentives with goals, and affirms the notion that human beings are an integral part of the natural order and merit no less consideration than Earth's other treasures. Ultimately, nothing less can succeed in our efforts to restore natural resources and revitalize our social and political ecosystem.

ORDER TOLL FREE
800-927-8733

INDEPENDENT INSTITUTE

ORDER ONLINE
www.independent.org

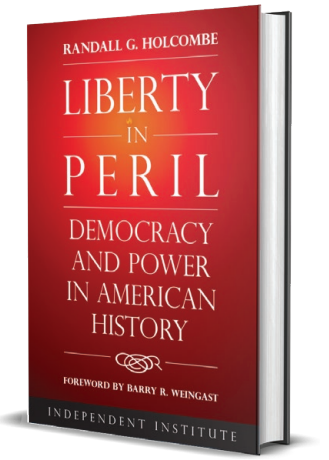
SUBSCRIBE NOW AND RECEIVE A FREE BOOK!



"***The Independent Review*** does not accept pronouncements of government officials nor the conventional wisdom at face value."
—**JOHN R. MACARTHUR**, Publisher, *Harper's*

"***The Independent Review*** is excellent."
—**GARY BECKER**, Nobel Laureate in Economic Sciences

Subscribe to ***The Independent Review*** and receive a free book of your choice such as ***Liberty in Peril: Democracy and Power in American History***, by Randall G. Holcombe.



Thought-provoking and educational, ***The Independent Review*** is blazing the way toward informed debate. This quarterly journal offers leading-edge insights on today's most critical issues in economics, healthcare, education, the environment, energy, defense, law, history, political science, philosophy, and sociology.

Student? Educator? Journalist? Business or civic leader? Engaged citizen? This journal is for YOU!

Order today for more *FREE* book options

SUBSCRIBE

The Independent Review is now available digitally on mobile devices and tablets via the Apple/Android App Stores and Magzter. Subscriptions and single issues start at $2.99. **Learn More.**



Download on the App Store | GET IT ON Google Play | Available on MAGZTER

INDEPENDENT INSTITUTE, 100 SWAN WAY, OAKLAND, CA 94621 • 1 (800) 927-8733 • ORDERS@INDEPENDENT.ORG