

## **Refutation: Does Fair Trade deliver on its Core Value Proposition?**

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### **Abstract**

Arnould, Plastina and Ball (2009) ask, 'Does Fair Trade Deliver on its Core Value Proposition, but their study fails ignores the core values of TransFair, those values on which it spends most money. It does not address its objectives, asking whether consumers receive the value they anticipate.

Their study is invalid for the following reasons. It ignores the many convincing reasons other than TransFair membership why TransFair cooperatives should have a higher income, better education or better health. What are called 'TransFair farmers' turn out to be only those in the most successful TransFair cooperatives, so it remains possible that all the other cooperatives are losing money from their TransFair membership. There are weaknesses in sampling. There are interviewer biases and response biases from the selection of interviewers and the financing of the study. Biases in the reporting of quantities, prices and area are almost certain to have occurred. The regressions on price present what appear to be random figures. The regressions on education give no support to the hypothesis.

Keywords: fair trade, ethical marketing, coffee, economic impact, educational impact, health impact, Fairtrade, TransFair.

## Introduction

Arnould, Plastina and Ball (2009) report a study asking whether one Fairtrade organization, TransFair USA, delivers what it promises: ‘Specifically, we ask the question, Are consumers receiving the value they anticipate, which is beyond their ability to evaluate individually, or are they being deceived?’ ( Arnould, Plastina and Ball, 2009, p. 186). The study was commissioned by TransFair, who presumably wanted to know which parts of their programme were working and which were not – a lot of people die if aid money is spent on ineffective interventions.

Fair Trade marketing has consumers paying retailers an enhanced price for coffee bearing the Fairtrade brand. Some of the extra payment reaches cooperatives in the Third World which have been allowed to use the brand. It arrives in the form of, first, an enhanced price and, second, a social premium which may be spent on health, education, etc.

Arnould, Plastina and Ball do not compare the Fair Trade model with any of the many possible alternatives. One simple alternative would be to print a receipt for \$1 on a packet of coffee with the promise that the whole sum was given to schools, hospitals and agricultural research in the Third World. This would be ethical in ways that Fair Trade is not: customers would know how exactly much extra they are paying for Fair Trade coffee; they would know that all the extra money is going to the front line, instead of to retailers, packers, traders etc (and it has been suggested that as little as 10% does: I have seen 1% of the extra reaching farmers, from a market leader’s main Fairtrade product.); and they would know that the market is not being distorted and making the poorest farmers even poorer.

The difference between these two systems, one with 100% going to schools, hospitals and research and the other with perhaps 10% is because Fair Trade’s objective is primarily political. It wishes to support cooperative marketing, so the money moves down a trading channel where retailers, wholesalers, packers, importers and cooperatives take a cut of the extra paid, rather than it moving by bank transfer. It uses any extra money that reaches primary marketing, first, to ‘bribe’ farmers to market through cooperatives and, second, to ‘bribe’ cooperatives to adopt a range of policies it finds politically acceptable. The ‘bribe’ is necessary because many farmers and marketing professionals think that small farmer cooperatives are usually inefficient, and because the cooperatives and communities would not otherwise have adopted these political systems, so a cost is necessarily incurred. Arnould, Plastina and Ball do not help the customers know what is being done, or what happens to the money.

However, this does mean that TransFair’s core proposition, the one that most of the money goes on, is political, not the expenditure on health, education and agricultural research – which most governments and aid organizations give much higher priority to. It is

surprising, therefore, that a paper titled, ‘Does Fair Trade deliver on its core value proposition?’ does not examine any of these political objectives.

We may speculate that consumers believe that part of the core value proposition is that a reasonable proportion of the extra price paid, say 90%, goes to the Third World and directly impacts on the farmers, but Arnould, Plastina and Ball do not ask whether TransFair delivers on this core value. It is surprising that we are not given figures on how much extra US consumers pay for TransFair coffee, how much reaches the cooperatives, and how much filters through to the farmers. TransFair should have the figures readily available – it is charity money, after all – and if they do not have it, Arnould, Plastina and Ball could have collected the accounts of the cooperatives they visited during the survey. Even those prices obtained in the survey are not presented in a way that makes comparisons possible.

In fact, all that Arnould, Plastina and Ball attempt is to find out whether there is any correlation at all between membership of a TransFair cooperative and improvements in income, health or education, without showing direction of causation.

### **Direction of Causation**

There is an implicit assumption throughout the paper that if there are any differences between the income, health and education of TransFair cooperative members and those of other farmers, it must be due to the activities of TransFair. It is normal for aid projects to run a baseline study of the situation before the project starts, so an unsuccessful project cannot claim a lot of benefits that were there already, produced by someone else. It is unfortunate that this was not done with these TransFair projects.

In fact, there is a strong probability that the direction of causation runs in other directions, that TransFair harms non-TransFair growers, that these particular cooperatives already had richer, healthier or better cooperatives and that is why they were selected by TransFair, or because any improvement in income, health or education was produced by third parties. None of these possibilities is discussed by Arnould, Plastina and Ball. Any one of the possibilities discussed below would invalidate the study in its entirety.

### **Where TransFair harms non-TransFair growers**

Non-TransFair growers may get lower prices and worse health and education because TransFair harms non-TransFair farmers. Economists have argued that Fair Trade helps a few rich farmers at the expense of a lot of poor farmers. For example, Fair Trade pays farmers a subsidized price, as well as having a minimum price which increases the average price and reduces the cost of risk. At the same time, TransFair claims to improve the yields farmers get, so they will supply more at any price. The result is an increase in supply hitting the inelastic market demand curve, which means that non-Fair Trade farmers get a reduced price. The

impact is normally thought of as impoverishing the desperately poor farmers of Africa while subsidizing farmers in Mexico, which has a GNP per head 70 times that of Sierra Leone, for instance. However, a similar effect is achieved when subsidizing TransFair growers to produce a specific quality such as specialty or organic coffees, which have a relatively inelastic within-country demand.

Economists also point out that paying rich, skilled, farmers more for their coffee, makes them less likely to move into alternative enterprises which would use their skills more profitably, so they do not move out of coffee and make room for the very poor.

The possibility should be considered, too, that TransFair cooperatives take health and education resources from others. If they build a clinic or school, government and aid organizations may send teachers, doctors and medicines there, rather than to the poor, because the infrastructure is already in place.

Arnould, Plastina and Ball say 'An important aspect of ATOs is their distribution of technical, price, and market information to producers through cooperative structures, information traditionally hoarded by market intermediaries to their advantage.' (2009, p. 188) That is to say, TransFair does have information that is not generally available and chooses to conceal it from the vast majority of poor farmers. This would be yet another way of pushing down the majority of farmers in order to boost the farmers in the TransFair cooperative. This would be considered unethical by most aid agencies.

### **Reverse causation**

It is generally accepted that Fair Trade chooses to work with cooperatives that can easily meet their criteria and produce the quality required at an acceptable price. This means well managed cooperatives, with skilled farmers capable of producing high-quality coffee at a reasonable price and educated farmers, capable of managing the paperwork and administration imposed by Fair Trade criteria. That is to say, cooperatives which would have been paying their farmers more than the average, before they joined Fair Trade. It would be extraordinary if this were not the case.

Much of the paper asks whether children in TransFair cooperatives get more education, claiming that TransFair must be the cause if it is. It can be argued that the opposite is the case. Cooperatives with educated members are more likely to be pioneers in TransFair, and the parents' education is the best predictor of a child's education in many countries. A higher income could also be the cause.

TransFair is likely to have started with the cooperatives that paid farmers a relatively high price, whether because they were efficient and low cost cooperatives, or because the farmers produced high quality or specialty coffees. It would be surprising, if they did not still pay a relatively high price, regardless of whether any of the higher prices from TransFair ever reached them. This is why project evaluation starts with a baseline study.

Farmers who are paid a higher price are likely to be able to afford more food, mosquito nets, anti-malarials, wells etc., so the farmers in the more successful cooperatives are likely to have been healthier even before the cooperatives joined TransFair.

### **Claiming the achievements of other organizations**

Arnould, Plastina and Ball say, ‘care must be taken to rule out major competing explanations for differences between TF and non-TF farmers.’ (2009, p. 188) Unfortunately, competing explanations and alternative directions of causation were not considered or ruled out. This invalidates the whole study.

There are a large number of other organizations helping with education, health and agriculture, including government (especially the Departments of Agriculture, Cooperatives and Health), the international organizations, donor governments and non-government organizations. They cover exactly the same issues that Arnould, Plastina and Ball say that TransFair does: ‘. . . production, product quality marketing, and social welfare initiatives, such as women’s programs, health, and education..’ (2009, p. 188) ‘A not-for-profit agency, such as TF, provides support to cooperatives for developing educational programs on production techniques; marketing; and family education, health, and welfare.’ (2009, p. 188) The government, the World Bank, UNDP, FAO, WHO, the Inter-American Development Bank, the EC and USAID, at least, have vastly more money and far more skills than TransFair and are more cost effective. It is certain that the cooperatives developed before TransFair membership with their help. It is probable that the cooperatives who got most help or who used the help most effectively were more likely to become TransFair cooperatives. It is certain that they continued to get their help afterwards – TransFair could not operate without their agricultural research, for instance. It is at least possible that these organizations chose to put more effort into the TransFair cooperatives because they had in the past shown that they were easy to work with, and had enthusiastic managers and members who would act on advice. This means that some or all of the difference in performance is due to these organizations, not TransFair.

Similarly, much, or all, of any observed effect may be due to the efforts of other ‘ethical trading organizations’ or other Fairtrade organizations, not TransFair. The Fairtrade and Max Havelaar organizations are the European part of the Fairtrade organization to which TransFair belongs, so any cooperative that meets their criteria automatically meets TransFair criteria. This means that there is a strong probability that TransFair cooperatives also sell to them. A similar, but less direct, effect is produced by a number of other organizations which may have special relationships with the cooperatives, including ‘ethical’ organizations like the Rainforest Alliance and UTZ Certified which avoid the Fair Trade model. And there are private traders who have long term relationships with some of the farmers. They too would

have influenced anyone they traded with.

### **Double counting**

There is double counting if well paid farmers are likely to spend their money on health or education, if educated farmers are more likely to make money and look after their health, or if healthy farmers are more likely to work hard and make money. Farmers who get a higher price can be expected to be healthier and have better educated children even if all the money for the health and education budget is stolen, so a study that treats these as discrete variables is invalid.

## **The Survey**

### **Who was surveyed?**

The ‘farmers in TF cooperatives’ whose success is claimed, turn out to be nothing of the sort. A very different population was sampled. The definition used was ‘fair-trade certified farmers, who meet the additional criteria of at least three years of participation in TF cooperatives and affiliation with cooperatives with consistent sales of at least 30% of their production to TF cooperative buyers’ (Arnould, Plastina and Ball 2009 p188). The cooperatives selling 30% of their production to TransFair are necessarily the most profitable and successful of the TransFair cooperatives. Cooperatives must spend a lot of time and money to meet the Fairtrade criteria, and they must meet the criteria for all their production. If they sell very little of their throughput at the enhanced Fairtrade price, they lose money. On average Fairtrade cooperatives sell 17% of their throughput at the enhanced price. Berndt (2007, p. 27) found that ‘In Guatemala, an executive at Fedecocagua, the largest Fair Trade cooperative, admitted that after paying for the cooperative’s employees and programs, nothing of the Fair Trade premium remained to be passed on to the individual farmer. As a result, CoopeDota Manager Adrian Cordero believes, “It’s not worth the trouble, Fair Trade.”’ And this in one of the countries covered in the survey in the same year. So the sample has been selected to ignore the average TransFair cooperatives, and it remains possible that these lost money as a result of their membership, and produced farmers with much worse incomes, health and education than non- TransFair farmers.

This alone invalidates the whole study.

## **Sampling**

Arnould, Plastina and Ball admit, ‘we cannot claim that our sample selection matches the ideals outlined in sampling textbooks’ (2009 p190).

A further problem arises because the control group was not selected from the same community as the TransFair cooperative, (Arnould, Plastina and Ball, 2009 p198) and the selection procedure excluded those local farmers who believe that they can get two or three times the TransFair price by selling to traders. In fact, ‘Farmers from the same community who chose not to participate in the TF system may have dramatic differences in their holdings, practices, demographics, or outlooks from the farmers in that same community who elected to participate.’ (Arnould, Plastina and Ball, 2009 p189). Indeed. So what is the survey supposed to be showing if they are excluded?

## **Selection of interviewers**

A strong bias is introduced by the selection of interviewers: ‘Interviewers either knew the co-op members well and were members of co-op families or were knowledgeable about the communities and were identified with the help of local community leaders or teachers. . . . They were assigned interview areas closest to their home communities’ ( Arnould, Plastina and Ball, 2009, p. 190). That is to say interviewers had to interview people they knew well in a small community, who might have personal reasons to impress or mislead them, which is odd, since outside interviewers are often chosen to avoid this.

Non-TransFair farmers were interviewed in a survey paid for by their business rivals, when they might reasonably resent the fact that foreigners had chosen arbitrarily to subsidize competitors rather than them. It would have been unethical to hide who commissioned the survey, and it would not have been possible to hide this in a small country.

This bias has strong effects on price reporting, for instance. Typically a cooperative averages the prices between members, so every member, and the interviewers, knew what the real price that the TransFair members got. The interviewers had to ask the independent growers. It is not entirely unknown for farmers to admit that they got a very good price – I heard a farmer do this in April 1964 – but it is very rare. It is not normally expected that farmers will tell the truth when they are asked what price they got – why should they, especially when there may be something to be gained from presenting to the foreigner as being poor?

This casts doubt on the whole study.

## **Measurements**

Coffee can be sold in several forms, as the fresh cherry, which would be processed by the cooperative using drying or washing, as dry beans for further processing, as parchment

etc. The weight and volume per saleable bean is very different. It is unlikely that all farmers sold the same product, and a difference between TransFair cooperatives and independents is probable. This raises problems in reporting prices and quantities, in converting them to a common measure for computing and in analysing the results.

The headline price is not necessarily the actual price. Transport to the buying centre, bags, 'inputs provided free', credit (with actual or implicit interest rate), discounts or bonuses for quality, etc may or may not be taken into account. Cooperatives are likely to pay a headline price with a list of deductions. Other farmers may quote what they actually receive as the headline price. At first sight it appears that this could have been handled by calculating net cash income. However, when low prices are quoted, depth interviewing often shows that the quoted prices are not at all comparable with the cooperative price. For example, traders buying tree crops may buy under a range of contracts, such as a payment per tree, with the trader doing some or all of fertilizing, pruning, spraying, picking, packing, transport and processing, and carrying a lot of the risk of crop failure etc. (which means that the trader is effectively the main farmer). Identifying this requires depth interviewing, not temporary interviewers using questionnaires as in this survey. It is formally impossible to allow for this statistically, by regressions, for instance.

A further bias arises because the survey was carried out over a period, 2004-2005, when world prices and exchange rates were changing, both of which affected the local currency price. Typically, a cooperative would average prices over a season, so as not to disadvantage individual members. Independent growers sell at spot prices, and they can be expected to quote the latest spot price, rather than the weighted average over the season, which they will not have calculated. So the level of price reported depends on the months in which the independents were surveyed.

Measurement of land area, a key variable of the study, is notoriously difficult, with intercropping, odd shaped plots cut out of the jungle, and with the difficulty of defining the edge of any orchard – where its roots go to -, and particularly the edge of the very small orchards considered here. This is a source of error and, it is a source of bias if cooperatives measure the size of coffee holdings, or their members do less intercropping.

The independent variables used in the regression, such as total income and yield per hectare are calculated by multiplying these unreliable figures, and of course multiplying the error.

The paper gives us no reason to believe that these problems were addressed, and the discussion of the analysis and conclusions, below, suggests that they were not.

## **Analysis and Conclusions**

The first interest in the conclusions is how much extra money is getting through to the farmers, from the subsidized world price and minimum price, and from the extra price paid

by consumers at retail. No information at all is given on this. There is no attempt to quantify the effects of TransFair membership (i.e. membership of the most successful TransFair cooperatives), so there is no way of determining the payoff per dollar extra paid by the consumer, much less to compare it with the payoff of giving money directly to an educational or health charity, or, possibly more effective, giving it directly to the government. Indeed they do not go so far as to identify what they are measuring: what is 'Price' in Table 6? Or '6- to 13-year-old children's educational attainment' in Table 7? Or 'Health' in Table 12? This is odd, when the primary objective of the paper is to answer the question, 'Are consumers receiving the value they anticipate, which is beyond their ability to evaluate individually, or are they being deceived?' (Arnould, Plastina and Ball, 2009 p186).

Table 6, which presents 'Regression with Dependent Variable: Price Obtained' does not mention currency, unit of weight or volume, or product (Cherry? Dry beans? Parchment? Green coffee equivalent?). One might reasonably expect 'US \$/lb green coffee', as making comparison with international prices easiest. However, this would give a producer price to non-TransFair members of 8.8 times the ICO-reported price in Guatemala, 3.5 times the FAO price (green beans) in Peru, and 4.4 times the FAO price in Nicaragua. The discrepancy is much higher if the bulkier, heavier, product actually sold by farmers is taken into account. The discrepancy still exists if the price is in local currencies - which would make one wonder what the statistical analysis could have been done for the three countries! These figures have been presented as the final results on which we should draw our conclusion that TransFair is achieving something, but the figures appear to be random.

It is normal practice to check one's input data and output data against data obtained from independent sources to detect such discrepancies. Where Arnould, Plastina and Ball do spot a discrepancy, they merely mention it, '... income in Nicaragua is significantly higher than in the other two countries. We do not have an explanation for this, except that Nicaraguan cooperatives may be passing on a greater share of income to co-op members.' (2009 p194). Elsewhere they say they just assume 'the notion that TF emphasizes the same kinds of production, product quality, education, and social welfare initiatives in the cooperatives in which it intervenes.' (2009, p. 190) It is surprising that they did not collect copies of the accounts of the cooperatives in the study in order to be able to answer this question and a lot of others. This casts doubt on the study.

Arnould, Plastina and Ball admit the extraordinary complexity of the factors affecting health and education, and they might have mentioned the complex of social and other factors affecting the uptake of agricultural technology, a critical factor in determining price and income. Given this complexity and the quality of the data, it is somewhat surprising that they proceeded with the analysis.

We are told, 'By the end of 2006, according to TF, fair-trade coffee farmers earned approximately \$91 million in social premiums from the United States, in addition to earning

the higher fair-trade price for their coffee'. (Arnould, Plastina and Ball, 2009 p187). If TransFair cooperatives are, as we are told, spending most of this specifically on education (presumably on teachers and schools), and on health (presumably on clinics, nurses and medicines) we would expect a clear and unequivocal result. This is not a situation where long complex chains are relevant. It must be a cause for concern that there is not a clear result.

Arnould, Plastina and Ball state 'Thus, we can conclude the TF participation has a positive effect on current participation in primary education.' (2009 p 195). Their results show the opposite. They report two sets of analyses which did not find a significant relationship between 'TransFair membership' (i.e. membership of the most successful TransFair cooperatives) and education. The first concluded 'The estimated coefficients for sex of the person, sex of the respondent, living on the farmstead, and TF membership are not statistically different from zero at the 5% confidence level, suggesting that there are no direct TF effects on educational attainment.' (Arnould, Plastina and Ball, 2009 p192) then they 'reevaluated' the effects with a different model and found 'the total effect of TF in the level of education of children ages 6–13, though positive, is not significant.' (Arnould, Plastina and Ball, 2009 p194). Eventually, with a further 'reanalysis' (again using as independent variables several variables that they admit are strongly correlated with each other), they come up with a regression which they claim produces the 'desired' result. They say 'The statistically significant variables are the age of the child and TF membership.' (Arnould, Plastina and Ball, 2009 p195) but they do not mention the fact that their regression shows a strong *negative* relationship between length of time that the parent has been a TransFair member and the probability that the child is still at school, a result which refutes their hypothesis which explicitly relies on this being positive.

All three results are fully explained by the fact that TransFair selected cooperatives that were already successful and gave farmers a higher than average income.

It is noted that, 'The study was implemented in 2004–2005. With additional funding, researchers associated with the Terry J. Lundgren Center at the University of Arizona conducted additional analyses in 2006–2007.' (Arnould, Plastina and Ball, 2009 p186). This seems to suggest that new analyses were done when the original hypotheses did not produce the 'right' conclusion. It is always possible, of course, to produce a regression with a better fit than that of a hypothesis based on theory and experience, but this is not a result: at best it is a new, untested, hypothesis. It would be wrong to present tests of statistical significance with it: they give a false message.

It is surprising that Arnould, Plastina and Ball (2009 p191) say, 'We report the analyses on children ages 6–13 because the results of these analyses are uniformly more robust (i.e., they explain more variance than the analyses run on the entire sample from each country). It is not normal to report just the results that give the more convenient results, nor would 'robust' normally be used in this sense.

Morgenstern (1963) recommended that all statistics should be presented with only the number of significant figures justified by their accuracy. He suggested that the enormous saving in printing costs would finance a major improvement in collection procedures. It is surprising that Arnould, Plastina and Ball present their prices as correct to one ten billionth of a dollar. It is surprising that they present results as correct to a billionth of a 'health', In view of non-random sampling procedure used it is surprising that they present their analysis with tests of statistical significance that assume randomness.

## Conclusion

The objective of this study was 'to develop statistically reliable results' to determine where TransFair was not performing well, so it could cut its expenditure there or improve its effectiveness – spending aid money on underperforming projects kills people. The study does not in any way meet this objective.

The study ignores the core values of TransFair, those values on which it spends most money, and those in which it differs from other organizations. It remains possible that working through a long supply chain and using cooperatives, which are not universally admired, means that little or no money eventually reaches the producers. That is to say the study does not address the objective.

It does not attempt to quantify the inputs – how much TransFair money is spent by the cooperatives – nor the outputs – the changes they bring about – so it does not give us any idea of whether the money is wasted. It does not address the stated objective.

It ignores the many convincing reasons other than TransFair membership why TransFair cooperatives should have a higher income, better education or better health than non-TransFair cooperatives, and it assumes that TransFair is the only possible reason. This invalidates the study.

It does not, as claimed, compare TransFair farmers with others. What are called 'TransFair farmers' turn out to be those in the most successful TransFair cooperatives. It remains possible that all the other cooperatives are losing money from their TransFair membership, so their farmers are worse off. This invalidates the study.

Even if this were not the case, Arnould, Plastina and Ball admit that they 'cannot claim that our sample selection matches the ideals outlined in sampling textbooks' (2009 p190).

There are interviewer biases and response biases from the selection of interviewers, and the fact that independent farmers knew that the study was financed by their commercial

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rivals. This invalidates the study.

Biases in the reporting of quantities, prices and area are almost certain to have occurred. This invalidates the study.

The regressions on price present what appear to be random figures. The regressions on education give no support to the hypothesis, and one appears to refute it. There should be no need for complex behavioural explanations if \$90m is spent on health and education. This invalidates the study.

It is to be regretted that the opportunity was missed to carry out the first meaningful, statistically valid, assessment of Fair Trade.

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