

**Unmasking Complicity: A Kantian Examination of Child Labor in the Surgical Instrument
Manufacturing Industry of Sialkot, Pakistan**

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On my honor as a student, I have neither given nor received unauthorized aid on this assignment
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Introduction

For decades, the steel surgical instrument manufacturing industry in the remote city of Sialkot, Pakistan, has used cheap exploitative child labor under abominable working conditions to produce over a quarter of the world's surgical instruments at extremely low quality and cost. German distributors are gouging Pakistani manufacturers for every penny they have, to turn around and sell these instruments to western governments, hospitals, and providers for exorbitant markups. Such conditions are necessary to survive under the extreme downward pressure placed on prices by these distributors for the sole purpose of padding profit margins. Although this practice has been going on for many years, little light has been shed on the issue. There is a current body of literature that consists of detailed documentation of most aspects of the problem. Several academic publications discuss the industry dynamics, as well as in-depth analysis of the health hazards that regularly occur. Despite these publications and a few outdated newspaper articles, the issue has failed to gain traction among policymakers. As such, few steps have been taken to address the situation. The current body of literature fails to adequately discuss these issues from an ethical point of view, instead opting for entirely objective descriptions of the case. This paper addresses the gap in the current understanding by analyzing the industry through an ethical framework. Such an ethical discussion will contribute significantly to the current understanding of the case by highlighting the problems in the industry at a fundamental level. Viewing the case through an ethical lens will enhance the understanding of the atrocities being committed by appealing to human nature rather than surface-level statements of fact. The child labor used to produce surgical instruments in Sialkot is entirely immoral because it clearly violates Kantian ethics. Kantian ethics, a more detailed version of duty ethics, is an ethical framework that determines morality based on the nature of one's actions, rather than the

consequences of them or the character of the actor. Fundamentally, it is governed by the categorical imperative, of which there are two iterations. The first is that an action is morally permissible if all actions of that nature are still acceptable when made a universal law. The second is that all humans are equal and thus must be treated as ends in themselves, rather than means to another's end. If an action violates one of these postulates, it is immoral. Primary evidence will be produced that shows, in detail, the ways in which both categorical imperatives are violated. The evidence will prove that child laborers suffer extreme health consequences, and are deprived entirely of their dignity and education. Anecdotal evidence such as photographs and first-hand accounts will leave no doubt of these facts.

Background

The Sialkot region of Pakistan is a global leader in steel surgical instrument production, representing 99 percent of Pakistan's surgical instrument exports, and totaling at least 25 percent of the global market (ETI, 2020). Sialkot's contribution to the global supply chain is often underreported, as many instruments are routed through German intermediaries and thus marked as German. In the United Kingdom in 2018, 80-90 percent of instruments purchased by the National Health Service originated from Pakistan (ETI, 2020).

The Sialkot surgical sector is structured uniquely in a way that enables abhorred working conditions. 97 percent of the production process comes from the informal sector, which consists of thousands of small, family operated shops in the slums and outside the urban center of Sialkot. These vendors are forced to subject their workers to terrible conditions. Most are paid on a per-piece rate and live on less than \$2 USD per day. There are no safety measures, no benefits, and no collective bargaining (ETI, 2020). As of 2017, there were 5,800 child and 30,000 adult laborers combined across the surgical instrument and leather industries in Sialkot (Junaid, 2017).

The documented working conditions are staggering. 34 percent of these children work a 12 hour day, and no protective measures are used. Children have extremely high exposure to heavy metals that can cause serious health conditions such as asthma, hypertension, gastrointestinal diseases, renal failure, and cancer (Sughis, 2012).

Literature Review

The literature surrounding the labor conditions of the surgical instrument manufacturing industry in Sialkot is concentrated within a very small community. The few studies that have been done expertly illuminate the terrible labor conditions. While the labor conditions and economics of the industry have been adequately described, the literature does little to examine the back end of the supply chain, as well as the full extent of complicity by western stakeholders such as distributors, governments, and health systems.

The most comprehensive picture of the issue comes from the world's leading researcher and activist in this realm: Mahmood Bhutta. He first illuminated the problem in his 2006 paper titled "Fair Trade for Surgical Instruments" (Bhutta, 2006). Sialkot represents the surgical instrument manufacturing industry in the developing world, producing a fifth of the world's surgical instruments at the time. The industry dates back to the manufacturing of swords in the 17th century. As such, most of the production is done by hand. The industry employed a workforce of 50,000 at the time. Manufacturing firms in Pakistan subcontract most of their production to the informal sector, consisting of very small workshops often in family homes. These firms sell to distributors which then sell to western buyers at obscene markups. For example, a manufacturer will sell to a distributor at a 1.25x markup, and the distributor will sell it for a 64x markup. The German distributors used to maintain large contracts with manufacturers, which would guarantee quality instruments. However, after American legislation

in the 1990s guaranteed all instruments meet certain quality standards, Pakistani manufacturers lost all of their negotiating power. Now, they would award very small contracts based on price alone. This drastically increased competition in the industry and put immense downward pressure on production costs. The result was an extreme worsening of labor conditions, such as unsafe working environments, prolonged exposure to heavy metals, long hours, and pay as low as \$2 USD per day. There is no job security and no collective bargaining. Worst of all, child labor has become pervasive in the sector. Bhutta quantifies that around 15 percent of the workforce are children, some as young as seven years old.

Little has been done to address this problem, as there is little public visibility or knowledge. Some western countries, including the United States, have refused to purchase instruments produced by child labor. However, boycotts can squeeze the industry even harder and worsen the problem. Bhutta argues that the economic pressure must come from those awarding the contracts to the informal sector, rather than the end buyers.

The other subset of available literature on this case consists of detailed studies on the adverse health effects on child workers in the surgical sector of Sialkot. The most striking of such studies is titled “Adverse Health Effects of Child Labor: High Exposure to Chromium and Oxidative DNA Damage in Children Manufacturing Surgical Instruments” (Sughis, 2012). While Bhutta focuses more on the economics of the problem, Sughis conducts a scientific analysis on the conditions of child laborers in Sialkot, directly comparing them to the schoolchildren of Sialkot. He finds that 60 percent of these children have never been to school, and that 34 percent of them work a 12 hour day. None of the children use protective gear. Almost all of them complain about joint pain. Many are working to pay off their fathers’ debts. All are exposed to very hazardous levels of heavy metal. The most glaring statistic is that child laborers were found

to have urinary chromium levels 35 to 45 times that of schoolchildren. The study concludes that even the most basic action to improve these conditions will have a significant impact.

Publications prove that western stakeholders are directly funding hazardous child labor. If this is true, more discussion around the extreme moral flaws of this system must occur.

Conceptual Framework

My analysis of the use of child labor in Sialkot's surgical instruments sector draws on the common ethical framework of deontology, or duty ethics, which allows me to construct the claim that the child labor in this sector is morally unacceptable, and that no entity may purchase surgical instruments that were made using child labor because doing so would constitute direct complicity in the problem. More specifically, I will be using Kantian ethics, which is the original and dominant ethical framework within the broader realm of deontology. Deontology is the notion that morality is informed by the nature of one's actions, rather than the outcomes (utilitarianism), or the character of the actor (virtue ethics). The creator of deontology is Immanuel Kant, who establishes a more rigid framework for determining moral rules. Kant begins by arguing that, because happiness varies so much on an individual basis, it does not form a proper justification for action. Instead, morality must govern action because morality is universal. Each individual must determine for themselves what is morally right. If one acts on the basis of that determination, they are acting with good will and are thus adhering to duty ethics (van de Poel and Royakers, 2011).

Kant establishes the guideline by which one can determine the morality of their action with what he calls the "categorical imperative." There are two articulations of the categorical imperative, which Kant argues are equivalent. The first articulation states, "Act only on that maxim which you can at the same time will that it should become a universal law." This means

that a principle is only moral if, when made universal, it does not contain any contradictions. For example, while one might think that lying in a particular situation leads to a better outcome, they must not do it because lying cannot be a universally accepted norm. This is also known as the “universality principle.” The second articulation states, “Act as to treat humanity, whether in your own person or in that of any other, in every case as an end, never as a means only.” Kant’s equality postulate argues that all humans are universally equal and have their own free will. Such is the foundation of human rights. Only a person themselves can determine if their actions are morally justified. Thus, misleading someone for one’s personal gain infringes upon that person’s equality and free will, and uses them as a means rather than an end. This articulation is known as the “reciprocity principle” (van de Poel and Royakers, 2011). I will prove that the use of child labor in Sialkot clearly violates both versions of the categorical imperative, and use this framework to argue that child labor is morally wrong. I will also explain why every stakeholder down the supply chain is complicit in the use of child labor, and thus also acting immorally.

Analysis

Version One of the Categorical Imperative

The use of child labor in this case violates the first categorical imperative because child labor can not be universally accepted. The first categorical imperative states that one should act only on principles that hold true for society if applied as a universal law (van de Poel and Royakers, 2011). In this case, the decision in question is that of using hazardous child labor for the sake of producing products at very low prices and selling them at extreme margins. Children in Sialkot are subjected to extremely hazardous working conditions, leading to prolonged exposure to carcinogenic heavy metals, elevated risk of chronic disease, and risk of serious injury. The compensation they receive is well below Pakistan’s minimum wage, and cannot be

treated as a stable income source for even one person, let alone an entire household (Bhutta, 2006). A report by the Ethical Trading Initiative (ETI) in 2020 provides a more recent update on the state of the industry (ETI, 2020). The report corroborates much of Bhutta's 2006 report in the Literature Review, which is significant because there is a 14 year gap between them. It quantifies that 97 percent of the manufacturing process for each instrument occurs in the informal sector, where these labor conditions run rampant. Children still represent a significant portion of the workforce. Working conditions, pay, and the entire power dynamic within the supply chain all remain the same. The report mentions that their research team came across nine children between the ages of 11 and 15 using drop hammers in a workshop outside of the city. Figure 1 depicts a child polishing an instrument in one such workshop in Sialkot. The child is in a hunched over position, with copious amounts of sparks flying in front of his face. Figure 2 shows three children in ragged clothing, hunched over, sorting through hundreds of unfinished instruments. In both images, the children wear no protective equipment, as is almost universally standard (ETI, 2020; Bhutta, 2006; Sughis, 2012). Sughis's paper, described in the literature review, quantifies that the prolonged exposure to heavy metals has led to a 25 to 45 times higher urinary concentration of chromium,

Figure 1

Child Polishing Instrument in Workshop



Note. Image taken by Haroon Januja (McVeigh and Januja 2018)

Figure 2

Children Sort Instruments



Note. Image copyright by International Labour Organization / M Crozet (Santhakumar and Bhutta 2015)

which has significant carcinogenic risk (Sughis, 2012). The health hazards are readily apparent. These standards cannot become universal, especially in the case of children.

A world in which this is the universal standard for labor would be cataclysmic. The lack of living wages would drive up income inequality and poverty, and the health hazards would directly harm every child's personal safety. The lack of educational opportunities would destroy an entire generation, as these children would be incapable of running society once they became adults. It is a clear violation of human rights, safety, and dignity. Krummel Daniel and Siegfried Patrick corroborate this argument in their own paper discussing the ethics of child labor (Daniel and Patrick, 2021). They argue that the hazardous conditions of child labor violate "dignity, freedom, wellbeing, and autonomy," and thus cannot be accepted as universal law because all the aforementioned principles are central to Kant's moral philosophy.

Version Two of the Categorical Imperative

Child labor in Sialkot violates the second categorical imperative because it rejects the dignity of the children by using them as a means for cheap labor rather than treating them as ends by protecting their self interest. The second categorical imperative states that all humans are equal and thus must be treated as ends, rather than means, because manipulating a human as a means deprives them of their free will and thus their equality to all other humans. In this case, the distribution companies are forcing prices down by taking advantage of the competition. The only way for any manufacturer to survive the competition is to lower labor costs, because every other production cost is fixed (ETI, 2020). This is the driving force behind the use of child labor in the industry. There are certainly alternatives. The only result of such low downward pressure on prices is a higher profit margin for the distributor. The manufacturer sells to the distributor at a 1.25x markup, and the distributor sells to providers at a 64x markup (Bhutta, 2006). This

evidence shows that there is no need for such immense downward pressure on production costs, and the only source of the pressure is a desire for profit. Alleviating the pressure on prices could allow for better labor conditions and the elimination of child labor, while only sacrificing a share of the already exorbitant profits. The governments purchasing from the distributors are no less responsible. Low cost is by far their main consideration because of the incentive to save taxpayer money (ETI, 2020). ETI concludes that this calculus directly contributes to the poor labor conditions. In a 2024 interview, Bhutta discusses his experience visiting Sialkot, which is the hometown of his parents. He states, “When I was there on my honeymoon visiting family, one of my cousins asked if I wanted to visit a surgical manufacturing plant. So, I went and what I saw shocked me. There were people working in utterly unacceptable conditions, children as young as 7 years old, making these instruments that would ultimately be used by the National Health Service” (Bhutta, 2024). It is clear that these labor conditions are depriving children of their human dignity, putting them at great physical risk, and sacrificing their development. All of this is being done for the sole purpose of padding profit margins for wealthy Westerners. In this way, children are being used purely as a means for distributors to make more money. Again, Daniel and Patrick corroborate this. They articulate that while a child working can sometimes further their independence, cheap labor under hazardous conditions, as is the case in Sialkot, does not in itself establish dignity. Rather, it represents a means for reducing production cost at the expense of the child (Daniel and Patrick, 2021).

Violation of Personal Autonomy

The case violates Kantian ethics a third way by denying children personal autonomy. It follows from the equality postulate and the second categorical imperative, that all humans must have their own complete autonomy to make their own decisions. This is evident in several ways.

First, if all humans are entirely equal, then no one human should be able to control or manipulate another. If one human told another what to do and they obeyed, then one would be more powerful than the other, and the other would not be acting according to their free will. According to Kant, only a person themselves can determine the morality of their actions; they cannot be dictated by others (van de Poel and Royakers, 2011). This conclusion can also be attained through reading of the reciprocity principle. The reciprocity principle states that all humans must be treated as ends in themselves rather than means (van de Poel and Royakers, 2011). Using a human as a means for one's own personal gain would mean that the human is doing one's bidding without regard to their best interest or following their free will. This demonstrates how complete autonomy is critical to Kantian ethics.

The children are being denied access to proper education, or alternatives to work, which violates their autonomy. The ETI indicates that poverty in the region is a significant driver of the parent's decision to send their child to work (ETI, 2020). Sughis quantifies that 60 percent of these children have never been to school. 36 percent claim to be studying part time. Furthermore, 34 percent work a 12 hour day, and another 60 percent work 8 to 10 hour days. All of them work at least six days a week (Sughis, 2012). It would be difficult to imagine that those claiming to study part time are being educated properly. This evidence shows that parents are making the decision to deprive their children of their education by sending them to work instead. The lack of education or ability to do anything other than work infringes on the child's autonomy. As such, the parents are using them as means to the end of making more money for their family. While this might be the only alternative to feed the family in the short term, the lack of education and dangerous working conditions makes it impossible for the children to live proper, dignified lives and provide for their families in the long term.

Thus far, I have argued that parents sending their children to work is immoral because it denies them their autonomy, which is a universal right. One may argue that children do not have autonomy because they are not developed enough to make fully rational decisions. Kant himself addresses this in his work titled *Education*. Professor John Wall explains Kant's views in his work titled "Human Rights in Light of Childhood" (Wall, 2008). He says that humans are subject to all the same instincts as animals, but the difference is that humans are also capable of using rationality to curb those instincts according to moral rules. Kant views children as primal beings subject only to animal instinct, who have not developed the capacity for rational thought that puts them on the same level as regular human adults. Those not capable of rational decision making cannot be awarded the same rights, nor must they be treated as a moral ends. They are, in fact, not equal to those that are fully developed. It would follow that children do not have autonomy in the first place, and thus cannot be denied autonomy. However, this argument fails to understand the caveat to Kant's characterization of children. While they are not able to control their animalistic instincts, they do have the capacity to control them as they get older and become educated. Wall explains that the entire purpose of education is to learn how to overcome the animalistic instincts and learn how to use rationality to act morally. As such, Kant concludes that they still must be treated as ends with human dignity (Wall, 2008). Parents are morally obligated to educate their children. The first categorical imperative can prove this very easily. If no parent educated their child, then there would be no future generations of rational humans, and thus morality would disappear from the Earth. The second categorical imperative proves this as well. Children must still be treated as ends with human dignity and the capacity for rationality. To choose not to educate them is to deny them their dignity and their chance for autonomy, thus treating them as means.

The final part of my argument is that anyone who purchases products of child labor is complicit in the use of children as means to an end, rather than just those who directly facilitate it. When looking at the full life cycle of a product, the “ends” are different for each stakeholder. For the manufacturers, the end is the profit from selling the product to the distributor. For distributors, the end is the profit from selling the product to the provider, and so on. Regardless of where the end is, the means universally encompass the child worker. Anyone who purchases or uses the product is using the child as a means to their particular end. Additionally, the purchasing of the product finances the actions of the manufacturers, which is directly enabling the child labor to continue. It is thus clear that anyone involved in the supply chain is acting immorally according to Kantian ethics.

Conclusion

The purchasing of surgical instruments manufactured using child labor in Sialkot by any stakeholder in the supply chain is morally wrong because it violates Kant’s universality and reciprocity principles, as well as basic personal autonomy. This travesty has received very little media and academic attention, and hardly any improvements have occurred since the information became widely known. There is no form of acceptable participation in this industry until the labor conditions meet international standards. No literature applies a full ethical framework to this case. This paper will fill that void and facilitate more discussion within local communities about ethically sourcing surgical materials. Although the hazards are occurring on the other side of the globe, there are direct impacts on local American communities. The University of Virginia Health System, among many others, purchases steel instruments manufactured in Pakistan. This work should inspire health administrators and governments to improve the sourcing of their

equipment and work to support the health of everyone, rather than the health of developed countries at the expense of impoverished Pakistani children.

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