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2018

The Oppressive Nexus of Socioeconomic Status and Gender in Egyptian Society: A Marxist Exposition

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Thesis Submitted to Levy Economics Institute of Bard College

by Stephanie Attar

Annandale-on-Hudson, New York May 2018

Acknowledgements:

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ABSTRACT

The main purpose of this paper is to argue that women from lower socioeconomic status (SES) position are, on the whole, subjected to higher rates of exploitation within the household. This is done by exploring the implications and flaws within traditional neoclassical economic models of the household, and offering a Marxian model of domestic production as an alternative. I argue that incidence of lower SES exacerbates the rate of exploitation by lowering women's bargaining power within the household. Two forms of bargaining power are posited to be particularly important: (1) the bargaining process over the distribution of resources within the household, and (2) the bargaining process over how much domestic labor the wife performs in the household. An empirical model is provided to test the applicability of these claims in Egyptian society. The results of this paper contribute to the growing recognition that alleviating gender inequality requires the use of public policy that explicitly seeks to remedy the unequal distribution of resources between men and women.

Keywords: Bargaining Power; Socioeconomic Status; Domestic Labor; Egypt; Marxian Economics

JEL Classifications: D01, J12, J16, Z1

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1. INTRODUCTION

One of the most prominent forms of inequality that that exists between men and women occurs in the household in terms of the distribution and control over of resources and of leisure time. Scholars have identified disparities in bargaining power between husbands and wives as fueling this disparity, and have thus argued that bargaining power is an important catalyst to enabling them to rectify inegalitarian relationships within the household (i.e. Braunstein, 2008). Bargaining power has been defined as the "degree of women's access to (and control over) material resources (including food, income, land, and other forms of wealth), and to social resources (including knowledge, power, and prestige) within the family, in the community, and in the society at large" (Dixon, 1978, 6). Women with higher bargaining power are therefore more likely to have the autonomy to make decisions that affect their well-being and their future. Two particular forms of bargaining power are posited to be important for household well-being: the bargaining power over the allocation of resources, and over the allocation of hours spent in household production.

Examining how bargaining power varies across socioeconomic and sociocultural contexts is important for advancing theory on women's liberation. To that end, I examine the case of Egypt, a patriarchal society (Kadiyoti, 1988), in which women's opportunities are often circumscribed in political, economic, and ideological ways. Especially pertinent to this analysis is the fact that female labor force participation hovers around 23% as of 2017 (World Bank, 2017). Thus, for at least approximately 8 out of every 10 women in Egypt, the family, and not the market, remains one of the primary mechanisms through which needs are met and through which inequalities are engendered.

Sadly, the theory of the household promulgated by mainstream economics lacks any theoretical nuance to effectively contribute to this discussion. One of the most obvious flaws is its assumption that that men and women's preferences matter equally in the distribution of household resources, and that all inequality is therefore voluntarily chosen. Gary Becker, for example, believes that "an altruistic family can be said to have a family utility function that is voluntarily maximized by all members regardless of the distribution of family income" (1981, 191). The theory is ideologically bankrupt in terms of its being able to conceive of a family in which women's interests are systematically marginalized in favor of men's interests within the household.

In contrast to this, feminist scholars have posited that women are essentially coerced by economic exigency to pursue patriarchal marriage when they find themselves in contexts in which there are a dearth of economic opportunities. In patriarchal societies, women may find themselves in situations where playing the role of a doting, obsequious housewife is the best way to obtain economic security when women are normally deprived from income-generating opportunities or other sources of livelihood as a result of gender-based discrimination (Brines, 1994). Synthesizing literature from this field with previous empirical studies finding that socioeconomic status is correlated with lower bargaining power within the household, I argue in this paper that women form lower SES are more likely to suffer from an unequal inter-household distribution of power, time, and resources.

Using a data set compiled by the Economic Research Forum, the Egypt Labor Market Panel Survey (ELMPS) for 2012, I examine the relationship between socioeconomic status, women's bargaining power, and domestic labor for Egyptian women. Importantly, this data set contains questions both on the number of hours per week that each individual devotes to domestic labor, but also on women's perceived participation in various facets of the bargaining process within the household that relate to the control over resources within the household. Socioeconomic status is constructed using principal components analysis, using variables whose connection to women's capacity for opportunities outside of the household or marriage have previously been established in the literature. This data set allows me to examine how women's bargaining power in the two aforementioned areas is compromised when the alternatives to marriage fall. To accomplish that, I use probit and linear regressions with SES as the primary independent variable of interest.

After conducting this analysis, I propose a Marxian model by which to interpret the positive results. Drawing parallels with Marxian theory of exploitation, I posit that inequality in the household is, in effect, a form of exploitation that can result in women consuming a smaller portion for herself out of the total output that she produces with her domestic labor, or spending a greater time working for the consumption of others in the household relative to the amount of time spent working for her own consumption. This paper adds to the chorus of voices calling for public policy to explicitly address the inequality of distribution between men and women for both inter-household and macro-level phenomena.

2. LITERATURE SURVEY

Despite claims to objectivity, the undeniable influence of contested social norms are readily apparent in the body of literature that comprises neoclassical economics. Nowhere is this more apparent than in the way neoclassical economics draws upon consumer and firm behavior, coupled with sexist assumptions of women's preferences, in order to formulate a theory of the family. This theory follows the tradition of previous sexist assumptions before it that circumvent recognition of the existence of patriarchal institutions that systematically deprive women of participatory parity in social institutions, including the family, by arguing that the family is best described as operating according to a single utility function that maximizes the well-being of all family members, who consume and distribute resources in an egalitarian fashion. This section juxtaposes these ideals with empirical conclusions found in development literature and feminist theory regarding the vulnerability posed by women's systematic economic deprivation, in order to argue that the veracity of a theory of the family can be determined by how well it recognizes women's unique vulnerabilities in a patriarchal mode of production. Taking cue from said literature, it also argues that women's oppression as a result of sexism is exacerbated by her socioeconomic status, which relegates her to an economically vulnerable position in which she may be incapable of resisting an exploitative distribution of power and resources within the household.

a. The Literal and Theoretical Subjugation of Women: Background to Neoclassical Economics

Readings of human history that utilize men's achievements as a synecdoche for the progress of humanity as a whole undeniably gloss over the ways in which numerous societies could not have been sustained without the deeply oppressive patriarchal institutions on which they depended. For example, despite being regarded as one of the most intelligent, civilized, and freethinking societies, Athenian democracy was founded off of a "divinely ordained" subjugation of the female sex. Like numerous other patriarchal societies, women in ancient Athens were expected to remain chaste, well behaved, and were "necessary but only as tools and instruments" for male needs (O'Neal, 1993, 121). Furthermore, her esteem in society could only be garnered indirectly through her husband and children (Kamen, 2013, 112). By allowing men to politically, economically, and socially dominate women, women's obedience to their male

guardians was solidified through institutional norms and female economic dependency that began to emerge in late human history (Gross, 2009, 159).

This pattern continued during the emergent capitalist industrial societies, where women's role in society was increasingly seen as being subservient to male interests. Guided by an ideological belief in irreconcilable differences between the male and female sexes, women were socialized to devote all of their attention to the "private" sphere of caretaking and maintaining the home, while men were instructed to be the traditional "breadwinner" (Barker and Feiner, 2009, 9). Charlotte Perkins Gilman's short story *The Yellow Wallpaper* is a quintessential depiction of women's debasement during the Victorian era. In the plotline, she depicts how her inquisitive mind and penchant for writing is interpreted as a sign of illness that must be cured with a banal domestic life, until she is finally driven insane by the patronizing attitude of her husband, who attempts to fix her "illness". Across society, women who had talent or ambition to pursue life outside of the family were shut off from such opportunities, and were told that doing so risked their fertility, their femininity, and even their life (Smith-Rosenberg, 1986). Indeed, women were perceived to have such little impact on life beyond the home that it wasn't until the mid-1960s that historians began to consider women as a "socially significant category" (*ibid*, 20).

This implicitly sexist worldview is particularly prevalent in mainstream economics, although hidden in the pretension to practice an objective "science" of rational human behavior in the face of scarcity (Robbins, 1952 [1935], 16). While most economists would acknowledge the role of ideology in shaping broad understandings of political economy, the discipline's rigorous mathematical models and ostensibly solid logic are its attempt to demonstrate fastidious observance of the normative/ objective dichotomy. The problem with this approach lies in its narrow framework that idolizes the abstraction away from lived reality as much as possible, in the process missing whole patterns of real-world economic behavior, including discrimination and inequality. Because these phenomena must be analyzed with a lens to how power operates in various social institutions—including the market, the family, and the state—to facilitate these inequalities, neoclassical theory remains woefully inadequate to assess many of the basic economic relations that marginalize whole groups of people.

To apply this to the topic at hand, it has been argued that the discipline's decision to be gender-neutral in its analysis of economic behavior was not the sign of a "pure" scientific theory, but rather a political decision and a question of epistemology that purposefully excluded

the female viewpoint as useful (See Sandra Harding, 1995). Given all of these reasons, Nelson's (1933, 32) call for a more comprehensive definition of economics than the one traditionally employed remains salient. Economics, she argues, is the study of "the provisioning of human life, that is, on the commodities and necessities necessary for survival" (1993, 32), broadening the definition from a male-centric pseudo-science framework of rational choice.

In constructing a theory of society in which gender and other social variables play no mediating role in allocation processes, neoclassical economics takes for granted certain assumptions about economic behavior and human nature. Among these, the discipline assumes that the motivations to action experienced by producers and consumers in the market translate, for the most part, into the incentive structures in other social institutions, including the family. Human beings in their ideal are cast as a single representative "man," of which can be ignored "every other human passion or motive; except those which may be regarded as perpetually antagonizing to the desire of wealth, namely, aversion to labor, and desire to the present enjoyment of costly indulgences" (Mill, 1836 [2007], 321). That this particular philosophy of human nature was sharply contested by other scholars, and that it has limited historical analysis on which to stake its claims, does not prevent neoclassical economics from usurping it as a means of providing the framework through which the unequal distribution of power and privilege engendered by capitalism may be analyzed.

b. The Neoclassical Theory of the Family

The shortcomings of this extremely narrow definition of economics is arguably nowhere more apparent than in the neoclassical theory of the family, which builds off of its myopia to oppressive gender relations in its assumptions about the harmonious, egalitarian, and even completely altruistic nature of the family. The theory's rigid assumptions about family behavior theoretically obviate the possibility of exploitation among family members. It even assumes that the distinctions between an entire household and an individual are so negligible that the terms can be used interchangeably for analysis, since all inequality is the product of voluntary Pareto optimum exchange within the household. Using the broader definition of economics that Nelson provides, it is clear that neglecting these issues portrays an unacceptably incomplete picture of economic behavior within the household. The apolitical framework, for example, is unable to answer questions as fundamental to women's wellbeing as why unequal distribution between the genders in terms of household resources, hours of household labor, and incidence of poverty continue to persist. Therefore, it follows that with the exception of few economists, the

discipline has been reticent to form complex theories about the economic interactions between human beings in the non-market realm.

To begin summarizing the neoclassical theory of the household in detail proves to be a difficult task with neoclassical literature alone. With few notable exceptions, most economists employ a very simplistic model of the household when discussing its role in economic phenomena, so much of the information on the household is contained in works by feminist economists who attempt to demonstrate the implications of the model as a means of describing its characteristics.

The simplest neoclassical model, and the one that is most frequently assumed to exist in economic analyses, is the unitary model of the household. In this model, all individuals within the household are assumed to act jointly as a single rational consumer, concomitant with the necessary ad hoc assumptions for this to be possible (Chowdhury, 2005, 3). The unitary model archetypically is based on a traditional heterosexual couple, where a husband and a wife make joint decisions about consumption and time allocation (Lundberg, 2005, 2). Within the household, all members are assumed to have identical preferences and utility functions, or to have a social welfare function in which the additive preferences of the individuals represent the household's total utility. The household is characterized as being conflict-free and efficient, with each individual receiving just compensation from the arrangement.

In order for the unitary model's assumptions about utility to hold, it must be the case that the decision-making ability or preferences of any one member of the household will not influence household decisions (Stolpovsky, 2015, 5). This justifies the simplistic assumption that resources are pooled and distributed equally among the household, and consumption decisions are made in a harmonious, cooperative, yet individualistic fashion (Ellis, 1988). Conveniently, Fortin and Lacroix (1997, 933) posit that aggregating utility preferences in a fashion akin to the unitary model makes it impossible to determine which parameters internal to the household, save the budget constraint, influenced the decision-making process that determines household distribution. This implies that the unitary model makes it impossible to critically analyze sources of power that can affect intra-household inequalities. In a similar vein, the model assumes that any observed inequalities in resource distribution within the household are the product of collective decision that reflect each individual's preferences for resource distribution (Matilla-Wiro, 1999, 4).

Although households are distinct from markets in that the main inputs involve elements of emotion and personal connection, and with human reproduction, rather than commodity production, being the end, neoclassical theory continues to treat these variables as they would pecuniary inputs by attempting to theoretically force household behavior to conform to the same paradigm as that of the neoclassical consumer or firm. Like the theory of consumption, neoclassical models assume that individuals within the household allocate time in order to maximize the utility for all members of the household, including their own. With limited time and resources, coupled with fixed technologies, the household is subjected to a production possibilities frontier that depicts the different possible uses of the household's time. Family members allocate time to household production until the point at which the marginal product of labor in household production is equal to the market wage (Strauss and Thomas, 1995). Consistent with an atomistic worldview, women, who traditionally bear the majority of domestic labor around the world, are inferred to be ultimately responsible for their own standard of living, and pursue marriage as a voluntary, mutually beneficial arrangement. However, what is perceived to be "beneficial" by all actors can be described by a singular sentence: all perceived benefits are irrelevant except those "perpetually antagonizing to the desire of wealth"

Starting in the 1960s, a new branch of economics called New Home Economics became popularized, which sought to elaborate on the unitary model's assumption that marriage is mutually beneficial across "all societies... regardless of time or place" (Becker, 1974, 210), with utility maximization achieved through consumption. One of the most important works to come out of this trend was Gary Becker's *A Treatise on the Family* (1981). The book is best described as an attempt to depict household decisions as based off of competing self-interest, in which each trade is a Pareto optimum trade, and in which intra-household time and resources are distributed according to an equilibrium point between the family, ensuring all needs and preferences have been equally met. In order to accomplish this, Becker superimposes the neoclassical assumptions of consumer and firm behavior on a patriarchal, heteronormative American / Western household, while filling in the theoretical gaps with sexist ad hoc assumptions about women's preferences.

Becker's scholarship makes use of several pre-existing economic assumptions of consumer and firm behavior to characterize the intra-household division of labor as a utility maximizing allocation of time between market and household labor (1981, 32). Households produce various commodities and services for consumption, he argues, and the husband and

wife will each willingly agree to maximize their efficiency in either domestic or market production in order to maximize every household member's consumption based on the resulting output of either sphere of production (*ibid*). Because they are rational, and because a division of labor (*ala* Adam Smith) maximizes output, members of the household will come to a collective agreement about who should accumulate "human capital" in the market, and who should in turn commit to domestic labor (*ibid*, 35).

While Becker claims that the designation of the market earner as "he" and the stay-at-home spouse as "she" is solely for convenience, it also happens to be consistent with the trite, discriminatory hypothesis that women are naturally more suited for household production. Becker's own affinity for this view is betrayed in statements that are peppered throughout his work. For example, he discusses the ways in which "natural" differences between the sexes make males more suited towards market work and women more suited towards domestic labor (*ibid*, 39). The logic of the neoclassical firm asserts itself here with the introduction of the cost-benefit analysis of investment towards production. Women are more suited for housework, Becker argues, "because they want their heavy biological investment in production to be worthwhile," with production here referring to the reproduction and socialization of children (*ibid*, 38). The fact that women have historically specialized in rearing children and other domestic labor is interpreted by Becker to mean that women are naturally more efficient at this type of work, and thus have chosen this path for themselves in order to maximize efficiency in production (*ibid*). He posits that women have a natural tendency to invest in household labor due to their biological constraints of having "eggs fertilized within the body", meaning that men and women's time are not perfect substitutes; each gender can maximize their output and utility due to "sexual difference in comparative advantage" (*ibid,* 39). Becker even surmises that women's ostensibly low energy levels relative to men may be why men are better suited for market work (*ibid,* 74).

As if seeking to demonstrate that his ideas about women's relegation to the household are "scientific" in that they apply universally regardless of historical or social context, he argues that these preferences for certain types of production are cumulative and immutable. Once wives have decided to pursue a domestic life, they develop related skills and efficiencies within household production that allows them to maximize their consumable output, while husbands find the same true of market labor (*ibid,* 34). Thus, the division of the sexes arises naturally, he reassures us, since it is impossible for "several members [of the household] to have the same

comparative advantage and invest in both market and household capital and allocate time to both sectors" (*ibid*). In fact, the division of the sexes is even beneficial for both genders, since the number of commodities that can be produced and consumed by the household grows as each household specializes in one type of labor (*ibid,* 83).

Since neoclassical economics has difficulty modeling or conceptualizing social behavior that is based on cooperation, solidarity, or love, they tend to imagine that each individual is interacting with others based on self-interest. The reduction of these other non-pecuniary motivations into the cost and benefit framework is similar to the way that Becker conceptualizes altruism. For Becker, altruism is the lynchpin that makes possible a condition of equilibrium in which the utility of all household members is maximized, despite the potential existence of conflicting interests. An altruistic person is defined as the individual in the household (assumed to be the patriarch) who contributes to the common family resources more than he consumes. The altruistic husband does what he can to ensure that other members maximize their own utility because, in the end, keeping other members happy leads to his own utility maximization as well. This means that he will abstain from actions that raise his utility if it comes at the expense of his spouse by an even greater amount, and he will engage in actions that raise the utility / income of his spouse if it comes at the expense of a relatively smaller amount of his own utility /income (*ibid*, 282).. Therefore, an increase in his spouse's utility even more than a decrease in his own will translate into a greater pool of family resources, ensuring a greater amount of consumption for all individuals in the family. This is what Becker means by the fact the altruist will "internalize all of the effects of his actions"—that his own utility will be maximized when first maximizing the utility of other members of the family.

Despite the demonstrated ways in which women are systematically unequal beneficiaries in marriage and other social relationships on a global scale, neoclassical economists claims that the concerns of feminists neatly conforms to their framework. Since voluntary exchange such as that of the market "economy" ensues in Pareto optimal outcomes, they imply that the theory can implicitly be used to critique systematic reasons in which women reach less than optimal outcomes, and instead emphasize how institutional blockades impede women from having an equal weight on decisions made within the household (Persky, 1995, 229). It has also been argued that this methodology is inherently superior to understanding women's behavior because it is parsimonious and can therefore be used to conclude generalizations about human behavior. The following subsection demonstrates how this model, which assumes that all bargaining

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power within the household is equal, is fundamentally incompatible with empirical studies demonstrating otherwise.

c. Socioeconomic Status, Domestic Labor, and Bargaining Power

The assumption that decisions are made in a cooperative manner and that outcomes are Pareto efficient is difficult to justify in the context of patriarchal family relations in which women are denied their autonomy, and frequently suffer from various forms of gender-based oppression. The utility maximizing framework that neoclassical economics employs in an attempt to deal with this problem is equally implausible. Whitehead (1981), for example, argues that women do not negotiate for their own interests because they identify with the stereotypical vision of the altruistic female. Notwithstanding mainstream economics' penchant for the rational choice model, the lack of autonomy for women to *choose* their standards of living has been identified in the literature for over 3 decades as an important contributor to gender stratification, particularly in developing countries. Furthermore, scholars have argued that women's interests are distinct, and potentially competing, with those of men (i.e. Blumberg and Coleman, 1989, Gupta, 2007). On the basis of these observations, women's socioeconomic status has been highlighted as a crucial variable that determines how well women are able to meet their needs within the household. Studies approaching women's welfare from this perspective represent a considerable improvement over the neoclassical framework, because they explicitly consider gender-based disparities in access to resources and power.

One important focus to stem from this literature is women's ability to participate in household decision-making processes, such as those that pertain to the distribution of resources and the freedom to choose how she interacts outside of the household. Previous research supports the idea that bargaining power is an important aspect of women's empowerment, because it allows researchers to pinpoint the ways that privileged groups (in this case, male) impose economic and familial arrangements on marginalized groups (females) in ways that serve their interests.

The context of how this relationship occurs is particularly relevant in Egypt, since the family is the basic economic and social unit around which all other aspects of Middle East North African (MENA) society revolves. It provides well-defined structure to social customs and responsibilities, is the primary source of social security, provides economic support for children, the elderly, and other dependents, and gives legitimacy to a sexual relationship between a man and a woman (Rashad et al., 2005). In Egypt, the World Bank estimates that

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female labor force participation hovers around 23% as of 2017. Thus, for at least approximately 8 out of every 10 women in Egypt, the family, and not the market, remains one of the primary mechanisms through which needs are met and through which inequalities are engendered.

A prominent theory that has been advanced to explain women's lack of bargaining power within certain households is the patriarchal bargain (Kandiyoti, 1988). The patriarchal bargain posits that different forms of patriarchy pose different optimum strategies for women to maximize their wellbeing and security. In countries where "classical patriarchy" pervades, including in the Middle East and North Africa, India and China, women enter into marriage as an "effectively dispossessed individual" who is expected to establish her place in the family through household production and reproduction (*ibid*, 279). Marriage serves the social function of normalizing women's social inferiority to men by reinforcing patriarchal gender norms in the household and in broader society. Family respectability becomes intertwined with women's obedience to the role of a traditional obsequious housewife, and thus women face pressure to forego even what little employment or skill-building activities they have access to, which in effect renders them more exploitable (*ibid*, 280). Kandiyoti argues that this is a strategy that women "choose," in part, in order to survive.

Relatedly, the dependency model of the division of labor emphasizes that women cannot be considered to be "choosing" in any real sense of the word when patriarchy shackles them to the role of dependents of their spouses and male relatives (Delphy 1984; Walby 1986). Women are in effect forced into this relationship due to the paucity of other opportunities to obtain economic security for themselves outside of marriage. This can be attributed to macro-level structures that entrench male privileges, including social norms about women's work, gender-segregated occupational sectors, family obligations that restrict women's labor force participation, the "family wage" that results in wage gaps between men and women, legal practices that do not adequately punish men who sexually harass or even rape women, and a lack of public welfare to support women who leave abusive relationships (see Acker, 1988).

Dependency model theorists also emphasize the inherent disadvantage that this bargain poses for women. Unlike a contract for paid labor between an employer and employee, the value of paid labor in the household is "neither exchanged in a calculated bargain for a wage which varies in proportion to the effort expended, nor with an employer who may be changed easily" (Walby, 1986, 34). To use economic terms, this implies a market failure, as the structure of such a household is more akin to a bilateral monopoly (Bowley, 1928) than a free market.

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Furthermore, women's capacity to perform domestic labor is illiquid outside of the specific marriage relationship that she has entered, unlike her husband's wage income.

To bring the focus back to women's autonomy within the household, these related strands of literature—the patriarchal bargain and the dependency model— imply that women are disempowered in related, yet distinct ways within the household power dynamics because of the disadvantage posed by their economic position. First, women suffer from an asymmetrical burden of household production. Globally, women spend almost twice as much time on housework, five times as much time on childcare, and half of the time on market work as men do (Berniell and Sánchez-Páramo, 2011). Secondly, the lack of control over resources within the household has been identified as having a negative impact on a women's bargaining power within the household. Both of these forms of oppression are a manifestation of the stratification of gender along both economic and ideological lines (Danaj, 2016).

Bargaining power can be conceived of as the "degree of women's access to (and control over) material resources (including food, income, land, and other forms of wealth), and to social resources (including knowledge, power, and prestige) within the family, in the community, and in the society at large" (Dixon, 1978, 6). Greater bargaining power for women implies that they have more autonomy to make decisions about various aspects of their lives, even when faced with opposition from men and other women. However, the ways that this agency manifests itself is culturally specific. One important form of this agency occurs when women act individually and alone (Hirschmann, 1997, 125). However, others have emphasized that women's autonomy must be examined in light of pre-existing social conditions that provide a framework for the collective mores and formal rules in which women's actions are embodied (Alavi, 1973, 42). For this reason, multiple empirical studies of, and theoretical explanations for, women's unequal status in the household emphasize the role of socioeconomic status in shaping the extent of gender-oppressive ideologies and the subsequent inability for women to control resources or the amount of their labor expended within the household.

Economists have specifically identified the control over resources and a woman's credible threat to withdraw them from a marriage as enhancing her decision-making power. Such resources can include public support to a particular household member, the woman's share of total household income, current assets, and assets at the time of marriage, such as dowry (Lundberg, Pollak, and Wales, 1997). Human capital, such as the spouse's educational level, is another such resource. Because it relates to a woman's ability to access and control the

distribution of resources, including time and money, bargaining power thus has important implications as it relates to the extent that women are able to resist inequitable relationships within families and their ability to make independent decisions. In particular, greater control over total household resources, higher educational attainment, and participating in income-generating activities has been linked in several studies to positive outcomes in terms of the quality of life for women and children, as well as equity in family provisioning.

One of the mechanisms in which low decision-making authority within the household is exacerbated by poverty is the fact that households from lower socioeconomic status are less likely to recognize the material contributions that women make to family welfare in terms of her household production, and thus undervalue her potential input to important decisions within the home that affect each family member's welfare in potentially conflicting manners. As a result, she is less likely to be recompensed fairly for her domestic labor. For example, Chatha et al. (2014) find that in Pakistan, women's socioeconomic status, as measured by income, education, and ownership of property, was negatively correlated with higher instances of sexual and physical violence, husbands preventing their spouses from leaving the house to visit family and friends, and less probability for women to identify domestic violence for what it really is. They surmise that ideological pressure that women face to keep the marriage intact, in addition to possible fear and embarrassment, makes women more passive in meeting their own safety needs, impinging on their autonomy as it pertains to freedom from threats of violence. They also find that the husband's educational level was the most important predictor for the probability of his subjecting his spouse to domestic violence, and interpret this as meaning that husbands of low educational backgrounds cannot perceive or value the contributions that his wife makes to the quality of household life (*bid*, 245). Economically, households that are relatively resource scare are more likely to experience domestic violence, since the authors find that 37 percent of women interviewed identified insufficient household income as the primary reason for a quarrel between themselves and their husbands (*ibid*, 242). This implies that women from resource insufficient households are more likely to find themselves in vulnerable positions without the sufficient social support or material resources needed to enhance her bargaining power in terms of autonomy from violence or freedom of movement outside of the house.

Kritz and Makinwa-Adebusoye (1999) find that, even when controlling for the prevalence of influential patriarchal institutions in some Nigerian tribes relative to others, an increase in a woman's level of education, contributions to household income, and access to

formal work all improve women's decision-making authority within the household. The authors attribute this partially to the shift in ideologies that accompany equitable gender development. When women are provided with the appropriate resources to improve their SES on a wide scale through social institutions, gender parity in the family becomes normalized, and women across socioeconomic status backgrounds are more likely to be valued and given the resources to develop their futures (*ibid*, 422). Nevertheless, while these strategies can be applied across society, the authors caution that gender equality will likely improve at different rates across different regions and social groups, due to different sociocultural features that distinguish women's relationship in the family from one society to the next (*ibid*).

A wife's agency in household decision-making in Nepal is positively associated with education and formal employment (Acharya et al., 2010). The authors posit that much of this has to do with the patriarchal ideologies in Nepal: Nepalese women are traditionally not expected to be employed outside of the home for money, which fosters an environment where men often control the household's income. This makes it difficult for women to pay for services or transportation outside of the household, in effect perpetuating their economic dependency. Paid employment, however, seems to empower women to think about ways that they can contribute to the household, including as it pertains to decision-making. They find that education was also another prominent variable that significantly improved married women's decision-making authority in all dimensions measured. Education imparts the qualitative benefits of self-esteem and self-worth, which heightens women's desire to seek medical treatment, employment, and equal rights with men. Thus, the authors point to the need for more institutions that provide community resources and challenge traditional gender norms, with specific attention to advancing formal legal rights for women, expanding women's opportunity to earn income, and expanding their control over productive resources.

A second link between women's poverty and their intra-household bargaining power is the fact that poorer women have less capacity to pay for outside resources, such as health care, daily needs, and their children's needs, which effectively renders them subject to their husbands' authority over her resources and spending patterns. Therefore, improving rates of employment and education for women remain two main priorities for equitable economic development. Economic development effectively reduces gender inequality by relaxing the constraints that impoverished families are subjected to, reducing the rate at which they are forced to trade off between equally urgent needs. Since these difficult choices are often resolved

by compromising on women's needs (Duflo, 2012, 1054), women from poorer households are more likely to lack adequate decision-making authority over inter-household resource allocation. Even when women from very poor households contribute to household income, this income would be immediately allocated to the family's basic needs, implying that there is very little to no discretionary income over which women can make decisions (Desai and Jain, 1994).

Boateng et al. (2014) echo this view when they find that household socioeconomic status in terms of tertiary education, wealth, age, and being employed facilitate women's participation in aspects of the household decision-making process related to healthcare, daily and large home purchases, and mobility outside of the house. Among these variables, having a say in large household purchases and being involved in her own health care decisions were the most likely to be positively affected by an increase in household socioeconomic status. Interestingly, wealth was not significantly correlated with a higher ability of women to make decisions as it relates to daily needs purchases. This can be attributed to the fact that maintaining the household on a daily basis is still broadly perceived to be as a primary responsibility of women in Ghanaian society, regardless of her particular household's wealth (*ibid*, 138). This finding is consistent with the assertion that women's empowerment occurs organically in the context of established customs and traditions of women's behavior in the family. The authors attribute their findings to the fact that prohibitively high health care costs limit poor women's access to, and control over, their own health care decisions (*ibid*, 139). Furthermore, employment was important to leveraging decision-making in the household, given that employed women are more likely to contribute to household resources (*ibid*, 155).

Martinez (2013) provides evidence that public support in Chile is positively correlated with an increase in women's bargaining power. She argues that an increase in resources via public transfers provides women with economic opportunities outside of marriage, thus increasing their likelihood to establish cohabiting relationships as opposed to marriage, which gives them greater autonomy in decision-making (*ibid*, 578). Specifically, while married women are less likely to engage in the labor force, cohabiting women have greater decision-making authority over determining their labor market outcomes (work status and hours worked). Public transfers also facilitated women's decision-making authority as it relates to increasing their children's educational attainment (*ibid*, 602). This suggests that women are more directly involved in the welfare of their children in terms of educational attainment, and that policies

designed to increase their bargaining power within the household have implications for the development of their children.

In Kerala, India, women's socioeconomic status, as measured by educational attainment, occupation, and household land size, was positively associated with actual and perceived health outcomes and lower rates of physical disability (Mohindra et al., 2006). There are several reasons that account for this disparity. To begin with, well-educated women are more likely to have the cognitive resources that allow them to better understand and control their health, in addition to financial security, which raises the odds that they will marry into a household that implements more egalitarian gender relations. Land also positively contributes to health outcomes, since it generates income and guards the household against economic shocks, which augments the financial resources that women can use to pay for healthcare. Finally, better health outcomes are associated with women's engagement in paid employment. They surmise that this is due to the greater financial and social resources associated with participation in the labor force, in addition to her spouse being more likely to perceive her contributions to the household, which facilitates spousal support for women controlling their health outcomes.

In sum, these empirical studies demonstrate that socioeconomic status influences the bargaining process within the household in terms of women's access to resources. This is attributable to two main reasons. First, family members from households who experience higher SES are more likely to identify women's value and contribution to the household, and thus are more likely to be ideologically aligned with values that support women's empowerment. Secondly, socioeconomic status is an important indicator of the types of privileges and opportunities afforded to a person, which translates into women having a greater opportunity to resist marriages in which she is subjected to oppression and violence. In economic terms, poverty lowers women's reservation utility in the marriage exchange, and also reinforces market failure in ways that restrict her from seeking alternative income-generating activities.

A second way that relatively low socioeconomic status impinges on women's position in the household is through the fact that poorer women tend to have less agency in the determination of how many hours of household production they engage in. Traditionally, domestic labor is a product of gendered expectations of the roles of men and women in the household (Ferree, 2010; Greenstein 1996; Brines, 1994). Such scholars offer the view that marriage is an institution designed to regulate symbolic displays of masculine or feminine gender ideology (Brines, 1994). In this view, the implicit "rules" that structure marriage,

including the gendered division of household labor, exist in order to promote the reproduction of gender itself (Berk, 1985). However, poverty exacerbates the dichotomy between men and women's roles in the household, including in the relative and absolute amount of domestic labor performed by women (Blair and Lichter, 1991). This is because in addition to sexist gender ideologies, power within a marriage also stems from the resources that the spouse contributes to the household. For example, studies have found that spouses (typically males) can use economically based bargaining power to compel others who are dependent upon their income to perform domestic labor in ways that are consistent with their own preferences (i.e. Bittman et al., 2003). Thus, the amount of time that women allocate to domestic labor is seen as a particular subset of the literature on women's bargaining power and agency within the household (Jejebhoy, 2000). Because women are economically dependent on men, it has been theorized that this phenomenon can be attributed to the fact that women's relative "price" of domestic labor, that is, the resources that she receives from her husband in a marriage relationship, declines due to this lack of outside opportunity.

Using time use data from Australia, Bittman et al. (2003) run OLS regressions predicting the relationship between hours spent on domestic labor and a wife's income relative to her husband's. Importantly, they control for the number of hours spent working in the labor market for each spouse in order to rule out the possibility that changes in domestic labor reflect changes in an individual's time availability. They find that a wife who is completely dependent upon her husband's income is likely to spend 6 hours more per week on unpaid labor compared to women who earn approximately the same amount of income as their husbands (*ibid*, 202). Confirming the fact that a misdistribution of resources exacerbates women's oppression while simultaneously augmenting the power of the privileged, the authors find no such statistically significant effect for men.

In a similar vein, Gupta (2007) argues that a woman's income matters in the determination of her time spent on domestic labor. Using data from the United States, she finds that an additional $7,5000 in married women's income translates into 1 fewer hour spent on domestic labor per week (*ibid*, 409). One explanation offered for this is the fact that women with higher absolute earnings are less dependent upon their spouses' income, and therefore are under less pressure to perform domestic labor as a trade off for a portion of their income (*ibid*, 413). In other words, the opportunity cost of performing housework rises as her market income does (ibid, 414). From a bargaining perspective, women with higher incomes therefore play a

more prominent role in the determination of the division of household production between spouses.

In another study examining gross earnings and time use in the United States, Parkman (2004) finds that as women's gross income increased, the amount of time devoted to domestic labor fell. They argue that time availability, the relative resource contribution to the marriage, and gender ideologies contribute to these effects (*ibid*, 791). In particular, they argue that in the bargaining process, the household faces a trade off between the additional income available to total household resources, and the potential benefits offered to the household in the form of her domestic labor. The perceived benefits of this labor are heightened by the degree of conservative gender ideology held by each spouse in the marriage (*ibid*, 777) and the duration of the marriage, with longer marriages corresponding to a wife's greater willingness to specialize in housework (*ibid*, 774). As a wife's income increases, the opportunity cost posed by her specialization in domestic labor increases, leading to a decline in the amount of domestic labor performed. Interestingly, as wives' domestic labor declines, husbands are only seen to increase their domestic labor supply marginally in certain tasks, and not at all in many tasks that are traditionally feminized in conservative ideology, such as cooking and cleaning. The author attributes this primarily to men's socialization into rigid gender roles (*ibid*, 774).

In the developing world, the relationship between income and domestic labor is more complicated, due to the influence of patriarchal traditional values. On the one hand, an increase in women's income due to paid employment has been associated with a greater access to resources, which gives her a greater leverage over the allocation process within the household (*expand*). However, Safilos-Rothschild cautions that this may only be translated into an increase in her relative power if the relevant male relatives in her life agree to it, since men frequently control women's wages and duration of employment (1982, 112). Nevertheless, numerous other socioeconomic factors have been demonstrated to mitigate this effect, including age, household size (with nuclear families offering women greater autonomy), ownership over resources other than income, and female education (Howard-Meriam, 1979, Haddad, 1998, Lane and Melleis, 1991, Jejeebhoy, 2000). Highlighting the importance of cultural specificity, Jabre et al. (1997, 6) described the manner in which Egyptian women increase their bargaining power within the household: they "defer to their husbands, gradually gain their support, and eventually win their respect. In this way, the women retained their husband's esteem, their families' equilibrium, and the respect of the community while beginning to make and act upon their own decisions." For

women in these situations, the attempt to shift the intra-household trade of goods in her favor may manifest itself in more subtle ways than what is suggested by the ahistorical Pareto optimum framework.

With this context in mind, the same negative relationship between domestic labor and socioeconomic status is seen among women in the developing world. Susilastuti (2003) finds that as educational attainment increases, both men and women in Egypt are more likely to support progressive values as they relate to several important indicators of the perceived role of domestic labor in the household, including whether or not men and women "do different work," whether the woman should perform all domestic labor, whether the women's place is at the home, whether women should be educated for work outside of the household, and whether a woman should voice her opinion within the household. The largest disparities were for the variables "husband should help [with domestic labor]," where 59 percent of respondents with no education responded in the affirmative, compared to 81 percent who had attained higher than a secondary education. Likewise, only 56 percent of respondents with no education stated, "women should speak up [in the household]," compared to 80 percent of respondents with higher than secondary education (*ibid*, 46). She also finds that paid work only results in an increase in women's autonomy in the household when the work offers prestige, a good salary, and the development of new skills (*ibid*, 69). These findings can be used to extrapolate the argument that an increase in SES is more likely to provide women with the resources that they need in order to find employment that is likely to increase their status within the household, especially as it pertains to domestic labor.

Other studies from the developing world capture the paradox of poor migrant women who are treated as homogenized, expendable, and interchangeable units of labor destined for domestic service in privileged wealthy households throughout the globe. Women in such households enjoy an increase in her bargaining power vis-à-vis her husband, since she absolves herself from what is often regarded as menial work, thus eliminating an important source of gender inequality in the marriage relationship (*cite*). This is not to argue that this global sexual division of labor represents a progressive development. Indeed, while this process may benefit the individual wealthy women, for females as a whole, this results in the undervaluing of household production, since workers are considered cheap, temporary, acquiescent, and more easily exploitable due to their radicalized and gendered characteristics (Magalit Rodriguez, 2010). In light of the well-established existence of this phenomenon, it would therefore be

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expected that women from higher socioeconomic status perform less domestic labor due to the financial ability to contract it to someone else.

Several analyzes have determined this relationship to hold for middle- to upper-class families in Brazil (Pinho and Silva, 2010), Latin America (Radcliffe 1999; Goldstein 2003), Lebanon (Jureidini, 2009), Egypt (Thomas, 2010), and in Gulf countries (Johnson and Wilcke, 2015). The common theme running through these papers is the way in which wealthy women are observed to hire poor migrant women of color to perform domestic chores, contributing to a depreciation in the price of domestic labor and a discrimination against women along gender, class, and racial lines. They argue that these women have little to no education and are low-skilled, and so their lack of alternative employment opportunities provides an opportunity for wealthier women to quite literally capitalize on their economic disparity (i.e. Pinho and Silva, 2010, 94). Compounding their precarious position is the fact that very few states have legal institutions that de facto guarantee migrant domestic workers certain minimum standards of living (Thomas, 2010, 989).

d. Egyptian Context

Given that the Arab world remains one of the most undeveloped regions in terms of gender equality, the oppression faced by Arab women provides an excellent case study for examining the incompatibilities of lived experience with the mainstream economic theory of the family, which views women as agents of their own lifestyles and family situations. Egypt in particular stands out regionally and globally for the lack of opportunities afforded to women. According to the World Economic Forum's Gender Gap Report for 2017, an index of economic participation, educational attainment, health, and political empowerment of women relative to men, Egypt ranks 134 out of 144 countries. Furthermore, a 2013 survey by 336 gender experts assessing women's rights as outlined in the UN Convention to Eliminate All Forms of Discrimination Against Women (CEDAW) ranked Egypt as last among all states in the Middle East. The survey examined violence against women, reproductive rights, the status of women within the family, their integration into society, and the role of women in the economy and in politics. Egypt scored abysmally badly, in both a relative and absolute sense, on almost every single category (Boros, 2013). Egyptian author Mona Eltahawy said of the results, "We removed Mubarak from our presidential palace, but we still have to remove the Mubarak who lives in our minds and in our bedrooms," citing a "toxic mix of culture and religion" that is responsible for women's oppression within Egypt (*ibid*).

Still other indicators demonstrate pervasive, multifaceted gender inequality. For example, women account for 65% of all illiterate people in Egypt (MDGs, 16). They also represent only 19% of total wage earners in the non-agricultural sectors in 2012, compared to the global average of 40%. And among women employed in non-agricultural sectors, almost half of those were in the relatively unstable and poorly paying informal sector (Assaad et al., 2013, 2). Women are also hugely underrepresented in national Egyptian politics, with women only holding either 2% or 4%, respectively, of the seats in either branch of its legislative body (MDGs, 20).

One particularly insidious form of abuse against Egyptian women occurs within the household. The most recent research shows that between one-third to half of married women in Egypt have experienced some form of spousal violence. According to the 2014 Egypt Demographic and Health Survey, 25 percent of women report that they were subjected to physical violence, 19 percent psychological abuse, and 4 percent sexual assault. Given that Egypt still does not have a law explicitly criminalizing domestic violence and marital rape, most survivors do not seek protection from the authorities (Ministry of Health and Population et al., 2015). Even if such laws did exist, they would not necessarily be enforced, since society finds such violence culturally acceptable.

Women in Egypt have unfortunately seen their already paltry opportunities for employment dwindle in recent years. During the Nasser era, all Egyptian citizens with at least a high school diploma were guaranteed public sector employment, irrespective of gender. However, structural adjustment programs beginning in the 1980s forced an end to this form of job security (Kadri, 2015, 43), exacerbating the difficulties of women in finding quality jobs, and leading many to become discouraged and drop out of the labor force (Assad and El-Hamidi, 2009). Among what little job creation has existed, the occupations traditionally occupied by Egyptian women, and especially government employment have also not grown as fast relative to sectors dominated by men (Barsoum, 2010, 66). Women in Egypt therefore bear the burden of unemployment more than men, partly because of cultural ideas that women are ill-suited for work outside of the home, and partly because of discrimination against women (Handoussa 1991; Rizk 1991; Moghadam 1993). Furthermore, the gender biases against women in the Egyptian labor force are compounded by a woman's socioeconomic status. Previous research has demonstrated that women from poorer backgrounds are less likely to have the skills, social network, and time to participate in the labor force (Damaske and Frech, 2016). Indeed, women

in Egypt are nearly 4 times as likely as men to not be in the labor force, and twice as likely to be unemployed (ERF, 2012).

Foreclosed from the same opportunities as their male counterparts, many women continue to assume the traditional role of housewife within Egyptian society. Nevertheless, Egyptian housewives have historically contributed to family welfare in both pecuniary and non-pecuniary means (Rugh, 1985, Tucker, 1985). For example, a housewife's activities may include unremunerated labor to a family enterprise, particularly in rural areas, craft production for sale, and obtaining loans from familial, neighborhood, and friendship connections (Donnahoe, 1993, 550).

Empowering Egyptian women in the work place starts with challenging the institutionalized and systematic forms of discrimination that keep them locked into a conservative and traditional gender paradigm, where men are viewed as the sole breadwinners in the family, and women as their dependents. This is translated into the time specialization of either gender: men specialize in market work, while household tasks remain almost exclusively the responsibilities of females (Hendy, 2015, 5). However, even when women have greater economic participation, they tend to remain more economically vulnerable, because of the socially assigned responsibility of reproductive labor (Olmsted, 2005, 112). It is therefore apparent that there are social, cultural, and institutional barriers to higher rates of women's equality with men in the important dimensions of "freedom, equity, security and human dignity" (ILO, 2015).

e. Conclusion

This section has explored the ways in which the most often employed economic framework of the family, the neoclassical theory, is pitifully inadequate at capturing the realities of power and coercion that exist in households between spouses. Contrary to their theory that exchanges are mutually beneficial and Pareto optimum, myriad studies have demonstrated that women consistently lack bargaining power within the household to determine even basic facets of their life, such as visiting family and friends, taking control of one's health, or sending children to school. This gender-based form of oppression is most likely when women and the households in which they live exhibit low socioeconomic status indicators, including as they pertain to education, ownership and control over resources, paid employment outside of the house, wealth, and age. In economic terms, poverty lowers women's reservation utility in the

marriage exchange, and also reinforces market failure in ways that restrict her from seeking alternative income-generating activities.

I have argued that two particular forms of bargaining power in the household, the ability to control how much time is devoted to domestic labor, and the degree of specialization that spouses undertake between market and housework, is especially important for understanding how class and gender interact to exacerbate women's intra-household inequality. Across the relevant studies, there is a clear relationship between socioeconomic status and the hours of domestic labor time performed women or their ability to participate in the decision-making process over the distribution of resources, implying that higher levels of SES enhance women's ability to advocate for their interests in the bargaining process.

The next section will undertake an empirical analysis of the relationship between socioeconomic status, bargaining power, and hours of domestic labor performed in Egypt. After that, I will propose a model as a heuristic for understanding how low socioeconomic status exacerbates unequal bargaining power within the household, and especially how marriages with a single breadwinner are fundamentally based on an unequal exchange of resources.

3. EMPIRICAL ANALYSIS

In this section, I provide an empirical analysis of the relationship between socioeconomic status and its relationship to bargaining power over certain household resources, and in time spent on domestic labor. The data for this study come from the Egypt Labor Market Panel Survey (ELMPS) for 2012, which was produced by the Economic Research Forum. The ELMPS was conducted in randomly selected households, and asks wide-ranging questions pertaining to household businesses, market employment, socio-demographic features, household and individual-level assets, and women's decision-making and empowerment within the household. In total, 12,060 households and 20,416 individuals were sampled. All individuals in this survey were asked questions about their time allocation to domestic labor using recall method for the past seven days. In particular, participants were questioned about their domestic labor in the house, including cleaning, laundry, preparing food, raising livestock, collecting firewood or fuel, collecting water, shopping for household necessities, caring for children, the sick, or the elderly, and construction work inside the home for the purposes of maintenance. The average married woman in the sample reports working an average of 30 hours of domestic labor a week, and 93% of married women report that being a housewife was the primary reason for

their lack of participation in the labor force. Breaking this down by family relations, 48% of women report that the husband, fiancé, father, or other family members had disallowed her to work outside the home, with the next most common answer, "to take care of children," only being chosen by 15% of the women as the primary reason. Additionally, while 19% of the general population reports working as an unpaid family worker (as in the family's own business), this figure climbs to 56% for married women. Among women who do work for pay outside of the household, 61% report that they do not keep any of their incomes for themselves. The answers to these questions provides evidence on the role of heteronormative gender ideology in Egypt as portraying women's primary role as subservient to male interests. It also demonstrates that this is an important factor excluding women from participatory parity in the bargaining processes in the household.

a. Principal Components Analysis and SES Determination

To better analyze the extent to which unavailable economic opportunities correspond with women being resigned to marriages in which her decision-making power is limited, an index for socioeconomic status was created via the use of principal components analysis (PCA). PCA is a useful econometric tool for streamlining multiple correlated variables into a one-dimensional index, especially when a concept is not easily defined by a single variable, such as socioeconomic status (Vyas and Kumaranayake, 2006, 406). From an initial group of n variables, PCA can create "components" which are comprised of the weighted variances of the original variables. That is,

$$PC_m = a_{m1}X_1 + a_{m2}X_2 + \cdots + a_{mn}X_n$$

Where a_{mn} refers to the weight for the mth principal component and the nth variable. The first principal component (PC_1) will create a linear combination of all data points and will explain as much of the variability in the data as possible. The process will then remove this variance and seek a second linear combination (uncorrelated with the first) that explains the maximum amount of the remaining variance, and so on. The variance of each component is given by the eigenvalues associated with the eigenvectors, with eigenvalues summing to the number of variables in the initial data set. PC_1 will therefore have the highest eigenvalues, since it explains the largest possible amount of variation in the data, PC_2 will have the second highest eigenvalues, and so on. Thus, the higher the eigenvalue of a component, the more it contributes to the explanation of the variance in the variables. Furthermore, the more correlated the data are, the fewer the components will be needed to capture the variance.

Kaiser (1974) provided one of the most frequently cited standards in the literature by arguing that eigenvalues with a value of at least 0.9 are "marvelous" (1974, 35) and thus should be given the highest priority in the construction of an index variable. Conversely, components with an Eigenvalue closer to 0 can effectively be considered irrelevant to understanding the variance in the original data, thus making PCA useful for reducing the dataset into as few dimensions as possible without losing important information.

Next, variables are identified whose contribution to SES has been well identified in the literature, and whose total numbers of observations in the dataset represent a statistically significant sample. The variables used for the SES index are as follows:

- Own educational attainment
- Parent's educational attainment
- Wealth
- Whether the respondent has a permanent job in the formal segment of the labor market
- The ownership of financial or other assets, including whether the household has any savings, whether the household receives interest payments from the ownership of financial assets, and if the household receives rent payments from the ownership of land
- If the household has a mud floor
- If the household has an automatic washing machine. This variable was not explicitly included in any previous studies, but its role as a luxury time-saver suggests its importance to socioeconomic status. The results of PCA confirm its appropriateness in constructing an SES index. However, this variable was not included in the construction of the SES index for the model that is used to determine the relationship between SES and domestic labor. This is because the access to household appliances may impact women's efficiency of labor.

This index is created using a mixture of individual- and household-level resources (the latter of which pertain to wealth and assets). This was unavoidable, due to the nature of the data. Thus, women and men receive an equal score based on the reported household value of these resources.

PCA is an appropriate form of analysis when the variables exhibit some degree of correlation amongst themselves so that coherent components can be identified. Two tests can be

employed in order to determine whether the characteristics of the variables being used for an SES index lend themselves to PCA. The Kaiser-Meyer-Olkin (KMO) test can be used to detect if the multicollinearity in the data is sufficiently strong. The maximum value of KMO is 1.0[1]. For my data, the KMO value was 0.71, indicating that PCA is suitable to use in the creation of a SES index with the above variables. Another test of the strength of the relationship was done using Bartlett's (1954) Test of Sphericity. This tests the null hypothesis that the variables to be used in the PCA are uncorrelated. The results of the analysis showed a significance level of 0.00, which is small enough to reject the null hypothesis.

KMO Measure of Sampling Adequacy	Bartlett's Test of Sphericity		
	Chi-Square	Df	p-value
0.71	12732.25	45	0.000

b. Results of PCA

The results of the PCA are shown below in table 1. The first factor accounted for 30 percent of total variance in the data, while the second accounted for 15 percent of total data variance, the third, 10.6 percent, the fourth, 9.7 percent, and so on. The second and third indexes comprised 13% and 10%, respectively. The next 5 components together comprise 46% of the total variance. The results in table 1 show that variables that measure heritable characteristics, such as wealth, parent's educational attainment, and financial assets, most strongly predict an individual's likelihood of having a high SES score. For the first principal component, wealth is the most important contributor to socioeconomic status. Surprisingly, the ownership of a fully automatic washing machine was the second most important contributor to an individual's index value, beating out traditionally considered variables like educational attainment and the ownership of income-producing assets. Another interesting facet of the results is that the relative importance of education in the determination of SES reflects the patriarchal nature of the culture from which these measures were derived. In particular, the father's education is marginally more important than the mother's education or even the individual's own education. As a whole, the educational attainments of one's parents were slightly stronger at predicting an individual's SES compared to one's own educational attainment, suggesting that inter-generational mobility within Egypt is somewhat limited. A recent study by the World Bank on Egyptian labor force

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[1] A value of 0.9 is considered 'marvelous', 0.8, 'meritorious', 0.7, 'middling', 0.6, 'mediocre', 0.5, 'miserable', and below 0.5, 'unacceptable' (Kaiser and Rice, 1974, 112).

Table 1: Variables and Corresponding Coefficients from PCA		
Variable	Coefficient Comp. 1	Coefficient Comp. 2
Educational attainment	0.322	0.36
Wealth	0.497	0.99
Father's education	0.376	-0.40
Mother's education	0.344	-0.481
Savings	0.201	0.363
Rent payments	0.125	0.012
Financial int. payments	0.199	0.143
Mud floor	-0.256	-0.071
Fully auto washer	0.413	0.112
Permanent job	0.002	0.549

mobility confirms this, finding that the type of job that an individual is likely to obtain in the labor force is heavily dependent upon what occupations their parents held, and that young people entering the Egyptian labor market are subjected to a significant amount of inequality in opportunities (World Bank, 2012).

One interesting thing to note is that almost every variable that received a relatively low score in component one received a relatively high score in component two, and vice versa. In particular, once characteristics such as wealth, financial assets, and parent's education are controlled for, variables that are more dependent upon an individual's own decisions, such as education, savings, and whether or not they have a permanent job, become important in the determination of SES for the second component. The exception to this pattern is wealth, whose coefficient in the second component is nearly double that in the first. This is perhaps indicative of an entrenched class structure in Egypt, in which privilege continues to be accorded to individuals who have high levels of wealth. Besides wealth, own educational attainment becomes slightly more important in the second principle component. Additionally, whether or not one has a permanent job in the labor force becomes extremely important. Interestingly, parents' educational achievement negatively impacts the SES score in the second component, suggesting that an individual who is able to pursue higher education and locate a permanent job enjoys a type of middle-class lifestyle, regardless of his parent's educational background.

Table 2 contains information on how SES scores are distributed across percentiles for the entire population, and for males and females over the age of 18. Interestingly, households exhibit negative scores for SES up until the 50th percentile for both men and women. This is perhaps reflective of negative wealth and savings (i.e., debt), in addition to the prevalence of the mud floors, which is the only variable in the index that explicitly contains a negative coefficient.

Table 2: SES Scores by Percentile Distribution			
Percentiles	Total	Men	Women
1%	-2.97	-2.98	-3.11
5%	-2.46	-2.40	-2.64
10%	-2.00	-1.92	-2.15
25%	-1.24	-1.23	-1.38
50%	-0.29	-0.35	-.0.49
75%	1.03	1.03	0.90
90%	2.35	2.44	2.17
95%	3.17	3.29	3.00
99%	4.94	5.17	4.87
Obs.	5,169	2,155	1,739

c. Variables and Regressions

To measure a woman's decision making power within the household, I estimate several models that seek to determine a woman's decision-making power within the household by her answer to the following questions within the data set:

Who in your family usually has the final say on:

- Large household purchases
- Making household purchases for daily needs
- Own visits to family, friends, or relatives
- What food should be cooked each day
- Getting medical treatment or advice for yourself
- Buying clothes for herself
- Buying clothes and other needs for children
- Dealing with children's school and teachers
- Taking child to the doctor

- Sending children to school on a daily basis

With possible responses being:

- Respondent alone

- Husband alone

- Respondent and husband jointly

- In-laws

- Respondent, husband, and in-laws jointly

- Others

Responses were coded as "1" if the respondent reports that she takes the decision alone, if her and her husband jointly decide, or if her, her husband, and her in-laws jointly decide, and 0 if she has no role in the decision-making process for the above variables.

Table 3 identifies wife response to 10 questions regarding household. It shows that, for the sample as a whole, women are more likely to have a say in some household decisions more than others. For instance, daily needs purchases and deciding what food is cooked are the only two variables where a majority of women report taking decisions on their own.

In contrast, husbands are more likely than wives to unilaterally take decisions on large household purchases, a wife's visits to family and friends, and dealing with children's school and teachers. Egalitarian responses, or responses of "husband and wife jointly," are highest with regard to a wife seeking her own medical treatment or advice (55.6%), followed by large household purchases (54%), sending a child to the doctor (52.1%), and a wife's own visits to family and friends (51.6%).

Interestingly, the data in table 1 demonstrate that wives are more likely than husbands to take unilateral decisions on most of the variables. While this may seem counterintuitive, Brines (1994) presents one possible answer based off of a theoretical model of the relationship between economic dependence and the distribution between husband and wife. Consistent with the models depicted in the previous section, Brines argues that the household is not just a place where resources are exchanged, but also a place where gender identity is affirmed and established. Therefore, while poor women are more likely to have their voice sidelined in all aspects of the household, the fact they report being "in control" of daily household life is consistent with the gender roles that define the marriage relationship in Egypt.

This latter point is pertinent to assessing patriarchy in the Middle Eastern context, due to the culture's ideal of the seclusion of women and the separation of genders in the public sphere

Table 3. Percentage Distribution of Wife Responses to Questions Regarding Who Makes Household Decisions in Egypt

Who in your family usually has the final say on…	Wife alone	Husband alone	Husband and wife Jointly	In-laws	Husband, wife, and in-laws jointly	Other
Large household purchases	4.1	39.6	54	1.2	0.84	.23
Daily needs purchases	52.4	17.3	27.2	2.4	.5	.3
Own visits to family, friends	18.2	26.4	51.6	2.4	1	.2
What food is cooked	58.5	10.3	27.6	2	1.3	.4
Medical treatment / advice for self	22.8	19.8	55.6	.9	.4	.5
Buying clothes for herself	35.2	16.8	46.9	.4	.2	.6
Sending children to school	37.8	33.3	27.0	0.2	0.5	1.2
Children's school and teachers	27.8	42.5	28.2	.5	.5	.6
Sending child to doctor	27.1	18.8	52.1	1	.5	.6
Clothes and other children's needs	27.6	26.1	45.4	0.2	0.2	0.5

Each row sums to 100% (±. 01).

(Keddie, 2007, 10). Given this more complicated social framework in which women must navigate, decision was therefore taken to code as a positive response the ability of the female respondent to either decide alone or to decide jointly with others. This is consistent with the insight in feminist literature that the concept of female empowerment often has a western-ethnocentric bias, which places too much emphasis on women's independence and even antagonism against men (Sharma, 19, 2000). However, this paradigm neglects the possibility of collaborative decision-making and interdependence within the family (Heckert and Fabic, 2013, 332). This is especially important in the context of Egypt and the Arab world as a whole, where the role of women in the family is highly connected to the preservation of cultural identity (Hijab, 2001, 43).

To empirically asses how women's bargaining power in Egypt varies based on socioeconomic status, I estimate the following probit regression model:

$$Decision\ Making\ Power = \beta_0 + \beta_1 SES + \beta_3 X_i + \varepsilon_i$$

X_i is a vector of individual and household characteristics (including household size, if the spouse is regularly present in the household, age, age squared, husband's education, age gap between the husband and wife, the number of children less than age five, and region of residence), and ε_i is an error term.

The variable *household size* might contribute positively to household labor or indicate negative repercussions associated with inadequate resources in the family. If the s*pouse is present* can be thought of as contributing to a wife's expectations in terms of daily household responsibilities. *Husband's education* is included as a proxy for the husband's conservatism and the demands that they might impose on women. *Age gap* between husband and wife is used to control for any enhanced bargaining power that one partner may have over the other as a result of age. *Number of children less than age five* can be thought of as positively contributing to the magnitude of the sexual division of labor in the household, and would capture any constraints she faces on time resources that are external to the husband and wife relationship.

The probit model captures the conditional probability of a "successful" outcome, where *Decision Making Power* $_i = 1$.

$$\mathbb{P}\left[Decision\ Making\ Power_i = 1\ |X_{1i}, \dots, X_{Ki};\ \beta_0, \dots, \beta_K\right] = \phi(\beta_0 + \sum_{k=1}^{K} \beta_k X_{ki})$$

Where $\phi(.)$ is the cumulative distribution function of the standard normal distribution. This means that, conditional on the value of the regressors, the probability that decision making power =1 is a function of a linear combination of the regressors.

Since coefficients do not have a direct interpretation in the probit model, I will also provide the marginal effects of each variable, which seeks to measure the *ceteris paribus* effects of changes in the regressors affecting the value of an outcome variable. In the probit regression, this is:

$$\frac{\partial \mathbb{P}[Decision\ Making\ Power_i = 1\ |X_{1i},.., X_{Ki};\ \beta_0, \dots, \beta_K]}{\partial X_{ki}} = \beta_k \phi(\beta_0 + \sum_{k=1}^{K} \beta_k X_{ki})$$

Although this still depends on the value of all the other regressors, when framed in this manner, Stata is able to assume the default choices of the values of the other regressors, allowing this computation to be made.

I addition to the Probit model, I run an OLS regression model estimating how hours of domestic labor changes based on socioeconomic status:

$$Hours\ of\ domestic\ labor = \ \beta_0 + \ \beta_1 SES + \ \beta_3 X_i + \ \varepsilon_i$$

Where SES, X_i and ε_i have the same interpretation as the above model with once exception. For this model, SES was constructed using all previous SES variables, except whether or not the household has an automatic washing machine. Instead, the presence of a washing machine is used as a control variable to control for how women's hours of domestic labor may vary with the productivity-enhancing technology of the automatic washing machine.

In the linear regression model,

$$\mathbb{E}\ (Domestic\ hours\ _i|X_{1i}, \dots, X_{Ki};\ \beta_0, \dots, \beta_K) = \ \beta_0 + \sum_{k=1}^{K} \beta_k X_{ki}$$

Meaning that the conditional mean of the hours of domestic labor is a linear combination of the regressors.

Tables 4 and 5 present the coefficients and standard error results of the probit models outlined above. In terms of the decision-making variables, socioeconomic status is an important correlate for women's decision-making authority in every variable except 2: seeking medical treatment or advice for herself, and sending children to school. Additionally, SES is negatively associated with women's ability to take the child to the doctor by herself. No clear pattern emerges regarding the statistical significance of the control variables. Nevertheless, the presence of these control variables in the models leads to the isolation of a statistically significant relationship between SES and the decision-making variables in the model, which is the primary relationship of interest for this paper.

With a coefficient of 0.131, the decision-making power over large household purchases has one of the highest coefficients associated with SES out of all of the models. These results can be attributed to the fact that in Egypt, household authority lies with the patriarch, with traditional family values dictating that he provide for the household. The household also embodies social status, achievement, and social acceptance, and provides a crucial channel for males' expression of masculinity (Inhorn, 2012). Thus, the gender segregation that exists outside the home also tends to replicate itself inside the home, with women being spatially segregated in the household, and caretaking duties relegated only to certain areas, especially when male guests are present. Thus, large household purchases can be understood as having a status symbol for Egyptian men, as it would represent control and provisioning for the

household, two characteristics heavily related to Arab notions of masculinity in the context of the household.

The decision-making power of women regarding their choice of clothing is also strongly and positively associated with SES, with a coefficient of 0.132. This is explained by the fact that Egyptian women carry a greater expectation of complying with social and cultural norms that delimit their behavior. Public discussion of women in this patriarchal context is mostly limited to discussion of controlling her sexuality—what she must wear or how she must behave in relation to her male relatives—rather than issues of empowerment such as equal pay (Metcalfe, 2008, 90). A woman's clothing choice is such an obvious and integral part of her public display of conformity to social customs, and recent ethnographic research furnishes anecdotal evidence that conformity to more conservative expectations of dress is related to family background (Dildar, 2015). This explains why women from poorer backgrounds would have less control over their clothing choices compared to wealthier women.

A woman's ability to decide whether or not she visits family and friends also is positively associated with socioeconomic status, with a coefficient of 0.083. Research on social networks has discovered that networks of relatives, friends, and neighbors facilitate the flow of information and influence (Wellman and Berkowitz, 1988). Thus, cultural attitudes, values, and ideological beliefs of women of low SES in Egypt are more likely to be perpetuated in homophilic networks. It has also been established throughout this paper that households with low SES tend to ascribe to patriarchal ideologies, which is in part attributable to the social networks that perpetuate these gendered expectations. These social barriers contribute to an explanation as to why a woman's autonomy in deciding when and how she visits others is lower in lower SES households.

The likelihood of participating in the decision-making process regarding daily needs purchases, what food is cooked, and buying clothes and other children's needs are all circumscribed by SES. Interestingly, these variables are contingent on a woman's ability to obtain income from her husband in order to undertake these activities. It may be surmised that her lack of an independent income source becomes a more difficult barrier to surmount in lower SES households, where the relative scarcity of funds makes husbands less inclined to distribute income to their wives. Furthermore, since resource-scarce households tend to discount women's interests and opinions in resolving important consumption tradeoffs, especially as they pertain to fundamental needs, women from lower SES households would also be less expected to

participate in the bargaining process. This is compounded by the fact that women have less financial or cognitive resources (as measured by educational attainment) on which to advocate for a change in unequal intra-household distribution (O'Neil and Domingo, 2015). This is consistent with previously reviewed literature that establishes a link between the household's socioeconomic status and women's economic dependence on men.

Women from lower SES-ranked households are also less likely to have any decision-making power over whether or not they participate in dealing with matters related to children's school and teachers. This is consistent with previous findings that children of women with higher levels of education and socioeconomic status also tend to have higher rates of education attainment (Buchmann et al., 2015). These findings can be interpreted as a result of the fact that more educated women tend to have higher preferences for the educational attainment of their children, and so they will utilize their relatively higher bargaining power to advocate for these outcomes. Interestingly, this was not the case for the variable measuring women's bargaining power over sending their children to school. The fact that the Egyptian constitution mandates education until the secondary stage as compulsory and free serves in reducing many of the barriers that otherwise would have prevented poorer households, where women tend to be disenfranchised, from attaining educational participatory parity (Ministry of Education, Cairo, 2008).

Table 5 presents the marginal effect of a one-point increase in socioeconomic status from the respective probit regressions. Since the socioeconomic status is comprised on an 8-point index, table 5 is indicative of the following results: women whose household SES score is in the top 12th percentile of the distribution are: (7·4.8) = 33.6% more likely to participate in the decision-making process for large household purchases compared to women in the bottom 12th percentile of the distribution; 14.7 percent more likely to participate in the decision-making process over visits to family and friends compared to women in the bottom 12th percentile of the distribution; 9.1% more likely to participate in the decision-making process over determining what food is cooked on a daily basis compared to women in the bottom 12th percentile of the distribution; 20.3% more likely to participate in the decision-making process over what clothes they wear compared to women in the bottom 12th percentile of the distribution; 16.8% more likely to participate in the decision-making process over allocating clothes and other children's needs.

Table 6 contains an OLS model regressing hours of domestic labor with SES, which was constructed using the same variables as the SES for bargaining power, but without the inclusion of a fully automatic washing machine in the index scoring. Age is negatively associated with the hours of domestic labor performed. A one year increase in age is associated with a decline in 1.3 hours of domestic labor worked. As expected, the addition of one child less than five years of age in the household increases the hours of domestic labor performed by 2.2 hours.

Table 4. Decision-Making Power: Probit Coefficients

	Large household purchases	Daily needs purchases	Own visits to family, friends	What food is cooked	Medical treatment/advice for self
Socioeconomic Status	0.131***	0.064*	0.083**	0.062*	0.018
	(0.033)	(0.036)	(0.043)	(0.04)	(0.043)
Spouse present	-0.93	-0.40	-1.52**	0.074	-0.096
	(0.691)	(0.617)	(0.70)	(0.73)	(0.73)
Age	0.0428	0.113*	0.175**	0.084	0.066
	(0.043)	(0.057)	(0.062)	(0.066)	(0.064)
Age squared	-0.001	-0.001*	-0.002*	-0.001	-0.001
	(0.001)	(0.0008)	(0.001)	(0.001)	(0.001)
Age gap	-0.007	0.001	0.003	0.012	0.008
	(0.008)	(0.109)	(0.003)	(0.01)	(0.011)
Age first married	0.021*	-0.011	-0.008	0.003	0.007
	(0.012)	(0.175)	(0.016)	(0.015)	(0.016)
Household size	-0.010	-0.544	0.005	-0.117**	0.006
	(0.032)	(0.038)	(0.04)	(0.048)	(0.037)
Husband's schooling	0.003	-0.014	-0.006	-0.011	0.004
	(0.009)	(0.124)	(0.012)	(0.012)	(0.012)
# Of children less than 5	-0.015	-0.012	-0.024	0.153**	0.024
	(-0.006)	(0.079)	(0.074)	(0.069)	(0.077)
Region					
Alexandria, Suez Canal	0.247	-0.261	0.365**	-0.025	0.308
	(0.161)	(0.226)	(0.195)	(0.223)	(0.207)
Urban lower	-0.105	-0.574**	-0.049	-0.09	-0.268
	(0.155)	(0.224)	(0.196)	(0.217)	(0.204)
Urban upper	-0.478***	-0.960***	-0.047	-0.368*	-0.268
	(0.151)	(0.223)	(0.199)	(0.208)	(0.204)
Rural lower	0.029	-0.227	0.145	-0.211	-0.069
	(0.14)	(0.221)	(0.176)	(0.194)	(0.181)
Rural upper	-0.414***	-0.800***	-0.248	-0.404**	-0.473
	(0.16)	(0.221)	(0.188)	(0.21)	(0.195)**
Pseudo R2	0.075	0.081	0.045	0.049	0.042
Observations	1,312	1,312	1,312	1,312	1,312

	Buying clothes for herself	Clothes and other child's needs	Children's school and teachers	Sending child to doctor	Sending child to school
Socioeconomic Status	0.132***	0.079*	0.05*	-0.129**	0.007
	(0.038)	(0.042)	(0.31)	(0.063)	(0.039)
Spouse present	0.001	0.139	-0.164	-1.28*	0.380
	-(0.001)	(0.691)	(0.623)	(0.576)	(0.611)
Age	0.211***	0.07	0.147***	0.001	0.036
	(0.064)	(0.07)	(0.056)	(0.059)	(0.063)
Age squared	-0.003**	-0.001	-0.002**	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age gap	-0.008	-0.005	0.011	-0.005	0.005
	(0.009)	(0.01)	(0.008)	(0.009)	(0.010)
Age first married	-0.020	0.001	-0.005	-0.005	0.001
	(0.017)	(0.001)	(0.012)	(0.134)	(0.001)
Household size	-0.129	-0.014	-0.061	-0.041	-0.012
	(0.037)	(0.051)	(0.046)	(0.033)	(0.035)
Husband's schooling	-0.001	0.003	-0.006	0.024**	-0.006
	(0.012)	(0.12)	(0.009)	(0.01)	(0.009)
# Of children less than 5	-0.058	0.09	0.027	0.016	-0.137**
	(0.037)	(0.075)	(0.059)	(0.066)	(0.073)
Region					
Alexandria, Suez Canal	0.522*	-0.388**	0.426***	0.455**	-0.469**
	(0.221)	(0.196)	(0.158)	(0.189)	(0.178)
Urban lower	0.189	-0.352*	-0.38**	-0.231	-0.268
	(0.221)	(0.205)	(0.159)	(0.194)	(0.19)
Urban upper	-0.256	-0.716***	-0.76***	-0.499**	-0.635***
	(0.206)	(0.205)	(0.159)	(0.189)	(0.192)
Rural lower	0.013	-0.183	0.385***	-0.306*	-0.11
	(0.184)	(0.188)	(0.144)	(0.175)	(0.172)
Rural upper	-0.013	-0.832***	-0.96***	-0.692***	-0.836***
	(0.061)	(0.2)	(0.159)	(0.187)	(0.186)
Pseudo R2	0.059	0.063	0.06	0.046	0.057
Observations	1,312	1,312	1,312	1,312	1,312

Table 5: Marginal Effects for Bargaining Power Variables

	Large Household Purchases	Daily Needs Purchases	Own visits to family, friends	What food is cooked	Medical treatment / advice for self
$\partial Y / \partial X$	0.048***	0.064*	0.021**	0.013*	0.004
	Buying clothes for herself	Clothes and other child's needs	Children's school and teachers	Sending child to the doctor	Sending child to school
$\partial Y / \partial X$	0.029***	0.024**	0.005	0.809	-0.0054

There is a strong regional component to the results of the model after controlling for socioeconomic status. Women in the Alexandria and Suez Canal regions of Egypt work, on average, 5.4 hours more domestic labor compared to the average woman, while women in the urban upper regions of Egypt and the rural upper regions of Egypt work, respectively, 3.6 hours and 7.7 hours *less* than the average. Interestingly, Alexandria and the Suez Canal region of Egypt is more economically developed than Upper regions of Egypt, which are poorer and experience a relative lack of public services, employment, educational opportunities, and general opportunities for social mobility. Perhaps these counter-intuitive results can be explained by the fact that the lack of extensive infrastructure, coupled with food and resource insecurity, results in less activities to be expected or available for stay-at-home wives to complete. For example, households in upper Egypt are more likely to lack hard flooring, water, electricity, a toiler, and cooking fuel than households in lower Egypt (Egypt Network for Integrated Development, 2015).

With such simple living arrangements, the extent of the need to maintain household living standards would be relatively low. Furthermore, the amount of income that can be devoted to inputs to household production, such as appliances, cleaning solutions, and even livestock or food, falls, resulting in a decline in the requisite domestic labor needed to provide for the family. By contrast, a household in lower Egypt, a region that experiences higher standards of living, also requires more hours of domestic labor to maintain. Any comprehensive model of domestic labor would therefore need to take into consideration the availability of inputs as a factor in the production function of domestic labor.

Table 6: Hours of Domestic Labor: OLS Regression Coefficients

	Hours of domestic labor
Socioeconomic Status	-0.772*
	(0.466)
Spouse Present	5.757
	(7.838)
Age	1.338***
	(0.493)
Age Squared	-0.022***
	(0.006)
Age gap	0.128
	(0.109)
Age first married	-0.055
	(0.158)
Household size	-0.928
	(0.559)
Husband's schooling	0.182
	(0.129)
# of children less than 5	2.181***
	(0.768)
Fully automatic washing machine	-3.152***
	(1.256)
Region	
Alexandria, Suez Canal	5.396***
	(2.065)
Urban lower	2.135
	(2.112)
Urban upper	-3.571*
	(2.100)
Rural lower	-1.081
	(2.105)
Rural upper	-7.692***
	(2.105)
Pseudo R2	0.079
Observations	1,417

Table 6 also demonstrates a high and positive correlation between the hours of domestic labor performed and the household's SES score. In particular, it demonstrates that for every 1-point increase in the 8-point SES index, hours of domestic labor worked declined by 0.77 hours. Since this translates into a 2.5% decline of the average hours reported by Egyptian women for every 12% improvement in SES, this figure is economically significant, especially in terms of explaining differences across social classes. Given the conclusions of previously reviewed literature, it is normal to assume that this decline is due to relatively wealthier women's enhanced bargaining power within

the household, in addition to a greater ability to hire an individual to undertake domestic labor in her household instead of her doing it herself.

3. A MARXIAN MODEL OF EXPLOITATION WITHIN THE FAMILY

Given that both literature review and empirical analysis have determined socioeconomic status to be an important factor in the determination of women's bargaining power, this section will provide a theory of exploitation within the household that accounts for the unremunerated value of labor power that women contribute to the household. I merge the Marxian concept of exploitation with insights in bargaining power and feminist literature as a means of offering an explanation for results found in previous sections. I show that in cases in which a patriarch is the sole wage earner who has the final say in the distribution of goods, inter-household distribution will tend to be such that the labor embodied in the goods exchanges with the wife for her domestic labor will tend to be less than the domestic labor that the wife provides to him, which effectively is an exploitative relationship. I also demonstrate how diminished bargaining power concomitant with low socioeconomic status engenders situations in which women consume less of the total output that they produce, or spend more time in the production of goods for others relative to the production of goods for self-sustenance.

For simplicity's sake, I assume that the household consumes 2 goods, the husband's income and the wife's domestic labor. I also assume that the patriarch's wages and the price of market goods remains constant. This is assumed because the primary concern of this model is not the determination of the husband's income, but how he divides his income within his household between himself and his wife. The husband's income that is consumed by the household is further divided into two categories: the portion that he consumes for himself, and the portion that is allocated to the rest of the household. In other words, the husband faces a trade off in deciding how to allocate his income, as he can either use his income to engage in personal consumption, or he can use it to 'purchase' his wife's domestic labor. The price of the wife's domestic labor, as will be demonstrated below, varies based on the household's SES.

It is assumed that the wife's domestic labor requires a minimum number of market-purchased inputs to produce a final output to be consumed by the household. Additionally, she may receive an additional amount of goods from her husband for her personal consumption as part of the implicit 'patriarchal bargain' occurring within the household, based on her

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bargaining power. Both of these payments can be measured in the amount of market goods that the husband exchanges with his wife. In contrast to many facets of domestic labor in which the whole household benefits, the husband's income is an excludable and rival good—he has the ultimate say in how equally or unequally it is distributed within the household.

In terms of behavior within the household, this model assumes 3 propositions. (1) The family experiences conflict of interest in terms of the distribution of good and the distribution of leisure time; (2) Each family member's share of goods or leisure time is determined by his or her bargaining power relative to other household members; (3) Bargaining power is affected by socioeconomic status, such that when women have lower socioeconomic status, they also have lower bargaining power.

I will also assume that women are recompensed for the full value of their labor power when income is distributed in an egalitarian fashion between husband and wife within the household, and that the value of household production can be depicted in terms of the value of labor power embodied in the goods and services consumed in the household that result from this non-wage labor. The cost of the reproduction of labor power provides an important starting point for an analysis of exploitation within the family. In chapter 23 of *Captial Vol. 1*, Marx identified the importance of the reproduction of labor power in the perpetuation of capitalism, stating, "wages… by their very nature, always imply the performance of a certain quantity of unpaid labor on the part of the laborer" and that "this incessant reproduction, this perpetuation of the laborer, is the *sine qua non* of capitalist production" (Marx, 1867, 436). Household production and reproduction therefore factor into the calculation of the wage rate, since the wages given to the working class must suffice to reproduce their manner of subsistence, allowing the worker to return to the market to sell his or her labor power.

Similarly, Engels (1884 [2004], 73) argued that the family serves as the nexus of female oppression under the capitalist mode of production due to its role in maintaining and reproducing the working class, such as fitting them with the skills and values necessary to be productive members of the labor force. Feminists have echoed this claim, posting that because domestic labor directly contributes to the value of labor power, it should therefore be reflected in the wage rate paid to the proletariat who sells his or her labor power (Gardiner, 1975, 55). By considering non-waged domestic labor to be an integral part of the reproduction of labor power, this opens the possibility that family members involved in household reproduction may produce

more than what is actually consumed by themselves, implying the existence of exploitative exchange within the family.

The model is assumed to have the following variables:

Q_h= the total quantity of household services provided

p_h= the "price" of household services; what the wife receives from the husband in exchange for domestic labor.

Q_h = the quantity of output of household services

a_{ml}= the market goods that have to be given up out of the patriarch's income to obtain 1 hour of household services.

a_p = the average productivity of the wife

L_w = the hours of unpaid domestic labor worked by the wife

Y = the total income that the patriarch receives from market work

w = the wage rate of the patriarch

L_p = the hours of market work performed by the patriarch

p_m= the price of market goods consumed exclusively by the patriarch

Q_m= the quantity of market goods consumed exclusively by the patriarch

Furthermore, we have the following identities:

$$Q_h = a_p \cdot L_w$$

$$a_p = \frac{Q_h}{L_w}$$

$$L_w = \frac{Q_h}{a_p}$$

$$a_{ml} = \frac{Q_m}{L_w}$$

Where

a_{ml} is the production coefficient showing the ratio of market goods that have to be given up out of the patriarch's income to obtain 1 hour of domestic labor. It includes the amount of market goods that the wife needs to transform them into household services (i.e., inputs), as well as the number of market goods that she requires from her husband as a part of acquiescing to the patriarchal bargain. a_{ml} can therefore be thought of as being determined by socioeconomic status and standards of living, including the technology of production that makes her labor more

efficient, as well as by her relative bargaining power that gives her control over household resources.

So,

$$\frac{a_{ml}}{a_p} = \frac{Q_m}{Q_h}$$

We can imagine that the value of Q_h is determined by the socially necessary abstract labor time necessary to produce it. Some Marxists have argued that the value produced by domestic labor itself is indeterminate, because household production is fundamentally different from market labor in the sense that the former may be arranged in idiosyncratic or inefficient ways (i.e. Molyneux, 1979). Nevertheless, since Marx himself conceived of one the household's primary goals as subsistence, or the reproduction of labor power, it can therefore be conceived that households that use their resources in inefficient ways would be eliminated. Households, in other words, face the same constraints that markets do in the requirements of efficient production (Folbre, 1982, 321). This proposition that efficiency is one of the primary goals of household production implies that a value, irrespective of an individual household's socioeconomic status, for Q_h's socially necessary abstract labor time can be identified.

a. Household Production from the Perspective of the Patriarch

It has been established that the rate of exchange between domestic labor and the husband's income is normally set in terms that are favorable to the patriarch, as the wife has little alternative for economic security outside of the marriage. Thus, the male has the ultimate veto power in rejecting negotiating terms proposed by the wife. This conceptualization is in line with previous authors' observations that the husband's responsibility to support his wife and family is "virtually unenforceable, reduced within marriage to whatever the husband chooses to give" (Acker, 1988, 486). Furthermore, this rate of exchange is not necessarily explicitly negotiated, as in some adversarial market processes, but instead the family comes to an understanding of how the household should be managed in ways that reflect broad societal norms, but nevertheless modified in ways that are specific to their relationship. Nevertheless, because male authority is enforced by objective material claims, the rate of exchange between domestic labor and material security in general reflects the preferences of the male. Therefore, restricting the analysis of household production to material terms, such as physical inputs and labor time, is an explicit way of examining the possibility of exploitation within the family (see

Folbre, 1982), while leaving concerns about other intangible aspects of the family for separate consideration.

This relationship can be modeled by modifying the neoclassical theory of choice in the context of utility maximization by imagining that the patriarch is confronted with having to choose how much of his income he should allocate to buy goods and services purchased through the market for his own personal use, and how much of his income to provide his wife as inputs to household production. This relationship can be expressed in the following form:

$$Y = p_h \cdot Q_h + p_m \cdot Q_m$$

Where Y represents the husband's total income, p_h represents the value of household services provided, and Q_h represents the quantity or volume of household services. This is admittedly a heterogeneous bundle of services, but assuming that it may be measured in terms of the value of labor imbued in them helps draw out the implications of patriarchy. Furthermore, p_m represents the price of market goods that the patriarch purchases for his own exclusive consumption, and Q_m represents the quantity of those market goods purchased for his own consumption.

We can further breakdown this relationship to be measured in terms of labor, or

$$Y = w \cdot L_p$$

Such that

$$w \cdot L_p = p_h Q_h + p_m Q_m$$

Where L_p stands for the labor hours of the patriarch. Dividing both sides by w:

$$L_p = \left(\frac{p_m}{w}\right)Q_m + \left(\frac{p_h}{w}\right) Q_h$$

Where L_p refers to the amount of labor offered by patriarch per unit of market goods.

By definition, $p_h Q_h$ is the remainder of the value of the husband's labor, embodied in the form of goods and resources, traded with the wife after he purchases a commodity bundle that is reserved for his exclusive use, or

$$p_h Q_h = Y - p_m Q_m$$

$P_h Q_h$ includes the labor that the husband offers per unit of commodities needed for the wife to engage in domestic labor, such as cleaning supplies and food. These goods are further distinguished between goods that she herself consumes, and goods that the family benefits from (more on that later). Additionally, we can assume that goods purchased by the wife must be first

transformed through some kind of domestic labor, such as preparing a dinner, cleaning the household, or even shopping to purchase the goods themselves (see Secombe, 1974, 9).

This income constraint facing men can be rewritten to show the tradeoff that exists, from the perspective of the patriarch, between the quantity of market goods that can be purchased for personal use and the quantity of household labor that can be obtained from the wife. This can be done by expressing the quantity of market goods purchased for personal use as a function of the amount of household services obtained, that is:

$$Q_m = \left(\frac{wL_p}{p_m}\right) - \left(\frac{p_h Q_h}{p_m}\right)$$

This represents, from the perspective of the husband, the price of household labor in terms of the value of labor embodied in the market goods that he must offer the wife. A third way of saying the same thing is that it represents the units of market goods that the husband must offer the wife in exchange for one more unit of household labor. Figure 1 provides a visual representation of this relationship.

Its vertical intercept is derived in the following way:

$$if\ Q_h = 0, then$$

$$Q_m = \left(\frac{w}{p_m}\right) L_p = \frac{wL_p}{p_m}$$

$$if\ Q_m = 0, then$$

$$Q_h = \left(\frac{w}{p_h}\right) L_p = \frac{wL_p}{p_h}$$

The budget constraint can be written as follows:

$$Q_m = \left(\frac{w}{p_m}\right) \cdot L_p - \left(\frac{p_h}{p_m}\right) \cdot Q_h$$

Since, $Q_h = ap \cdot L_w$,

$$Q_m = \left(\frac{w}{p_m}\right) \cdot L_p - \left(\frac{p_h}{p_m}\right) \cdot a_p L_w$$

We can now plot the budget constraint in terms of labor units:

$$if\ L_w = 0, then$$

$$Q_m = \frac{wL_p}{p_w} = \frac{w}{p_m} \cdot L_p$$

Therefore,

$$\left(\frac{Q_m}{L_p}\right) \cdot L_p = Q_m$$

$$if \ Q_m = 0, then$$

$$Q_h = ap \cdot L_w$$

In figure 1, the patriarch can choose to spend all of his income on the purchase of market goods for personal use $(\frac{wL_p}{p_m})$, or he can hand over all of his income to his wife, represented by the point $\left(\frac{wL_p}{p_m*a_{ml}}\right)$. The slope of the income constraint is equal to the amount of material goods, Q_m, that must be given up for a unit of domestic labor, L_w.

Figure 1: Income constraint
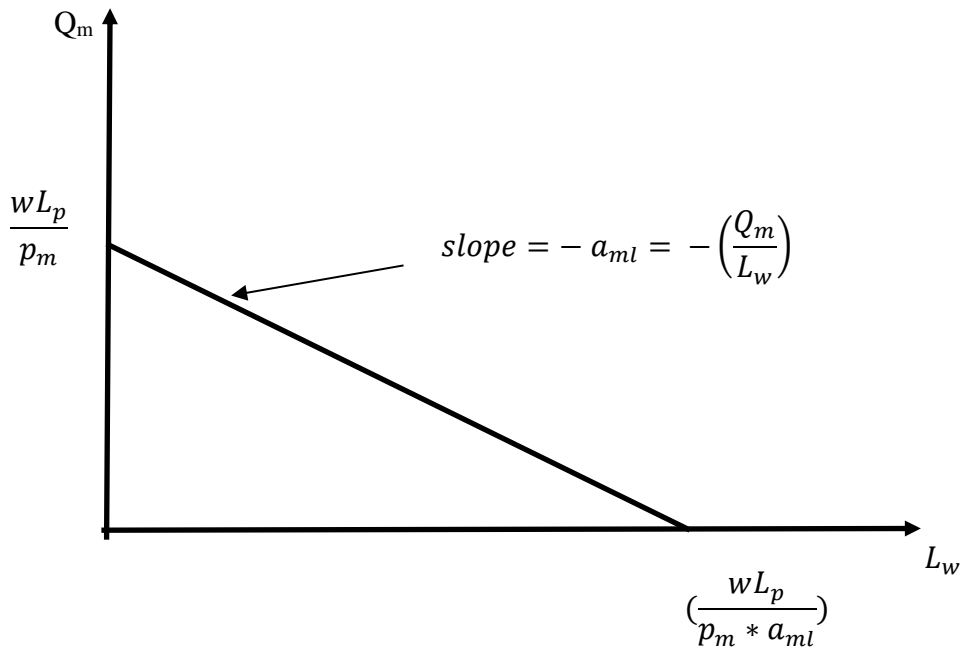
The slope of the income constraint is equal to the amount of material goods, Q_m, that must be given up for a unit of domestic labor, L_w.

The slope of the budget constraint varies depending on the value of a_{ml}, such that

$$if \ a_{ml} = 1, the \ trade \ off \ is \ 1:1$$

$$if \ a_{ml} < 1, the \ trade \ off \ is \ 1:< \ 1$$

$$if \ a_{ml} > 1, the \ trade \ off \ is \ 1:> 1$$

As the level of socioeconomic status increases for a household, then, in general, women tend to appropriate a greater portion of household resources for themselves. This occurs for several reasons: (1) households with higher levels of SES tend to have more resources, thus allowing the husband to be more charitable towards his wife in terms of resource distribution;

(2) women from higher SES households tend to enjoy more bargaining power, allowing them to advocate in their own self-interest for a greater portion of household resources; (3) women who receive more resources from their husbands as input are able to produce a greater output of non-wage labor goods. The general behavior patterns of families with different values of a_{ml} are collectively represented by budget constraints further from the origin, while families with lower SES would be represented by budget constraints closer to the origin.

Figure 2: Changing Rate of Exchange as Bargaining Power Increases
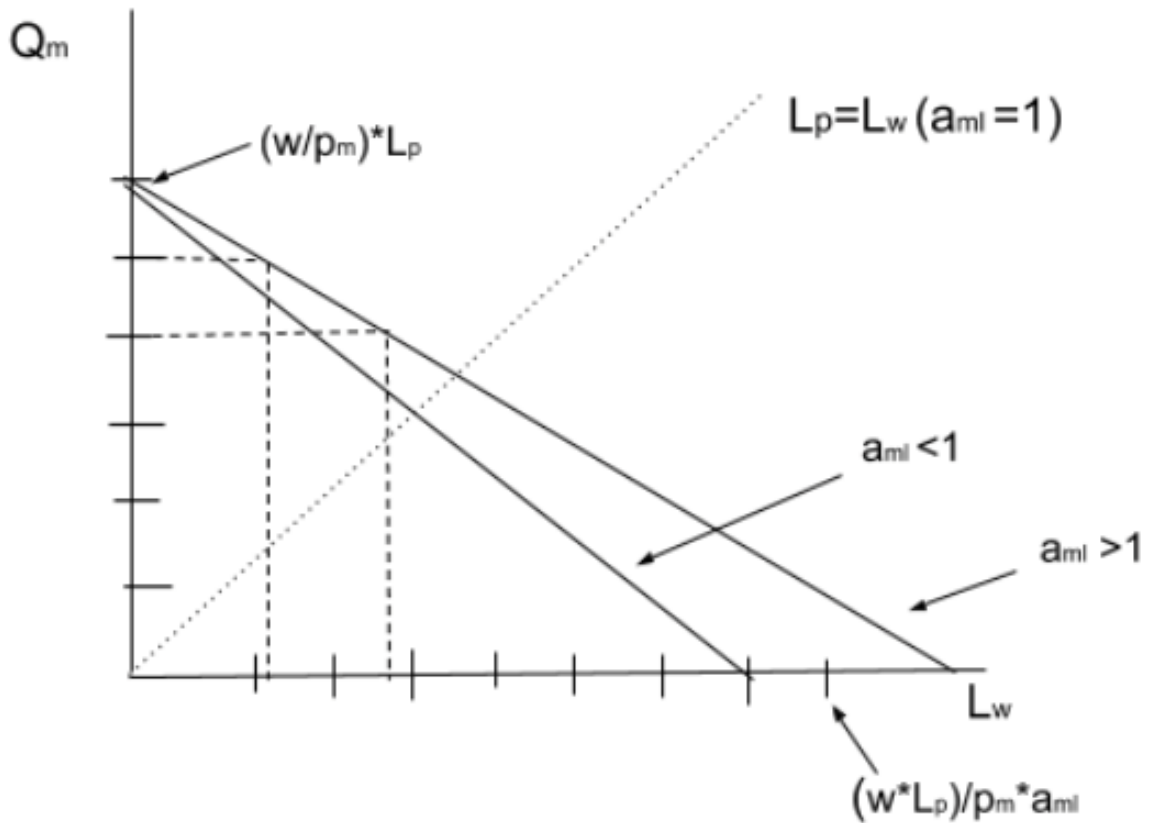
As figure 2 demonstrates, a decline in the remuneration for women's household services is commensurate with a decline in household SES. For example, when the patriarch trades off one unit of his income to receive domestic labor from his wife, he will receive either less than one unit of domestic labor if $a_{ml} < 1$, more than one unit if $a_{ml} > 1$, or exactly one unit if $a_{ml} = 1$. The lower women's bargaining power within the household, which is commensurate with her socioeconomic status, the more likely $a_{ml} > 1$.

b. Household Production from the Perspective of the Wife

Women's contribution to household production can be divided into the portion of labor time and output that are solely used for her own personal consumption, and the portion that is consumed by the household for their consumption. That is,

$$Q_h^{total} = Q_h^{self} + Q_h^{other}$$

and

$$L_h^{total} = L_h^{self} + L_h^{other}$$

Where Q_h^{total} represents total quantity of goods or services produced via non-wage domestic labor, Q_h^{self} represents the quantity of output of domestic labor that the wife undertakes for her own provision and consumption, Q_h^{other} represents the output of domestic labor that the wife undertakes for the remainder of the household's consumption, L_h^{total} represents the total hours of domestic labor undertaken, with L_h^{self} used to sustain herself, and L_h^{other} used to sustain the rest of the household. The higher the socioeconomic status of the household, the higher the amount of Q_h^{self} that the woman will receive, since she is more likely to be compensated in a way that exceeds the minimum required for her sustenance.

Both L_h^{total} and Q_h^{total} are divided in mutually exclusive parts between household production for self and household production for others. That is, the activities that comprise the measurement of domestic labor, including agricultural activities, livestock raising, washing dishes, doing laundry, cleaning, collecting water, collecting firewood or other fuel, shopping for household needs, or caring for sick or dependents, require a certain amount of activities that women must undertake for their own consumption and subsistence, and an amount that is required for others' consumption and subsistence, whose growth is commiserate with more household members. These 2 variables can also be thought of as being a function of the minimum required for subsistence, plus an additional amount of labor required as part of certain expectations for standards of living associated with socioeconomic status.

That is,

$$Q_h^{self} = Q_h^{self\_minimum} + Q_h^{self\_cultural}$$

Where $Q_h^{self\_cultural}$ is determined by the amount of labor required to maintain a standard of living associated with a socioeconomic status. Since subsistence is socially determined, it makes sense that the consumption that the wife engages in is consistent with her SES.

The production of Q_h^{other} domestic labor requires that the wife work L_h^{other} hours, assuming that her productivity of *ap* is the normal or usual amount of services per hour of domestic labor. However, in providing that level of service, the wife must produce the means of her own sustenance. Since her total household production is Q_h^{other}, but Q_h^{self} is the amount she must produce to sustain herself, the remainder ($Q_h^{total} - Q_h^{self}$) represents the household production services consumed by the remainder of the household.

The total hours of work carried out by the wife, L_h^{total}, exceeds the work she performs to keep herself going, L_h^{self}. This is one graphical way of conceiving of an exploitative exchange of services in the family. The larger the gap between L_h^{total} and L_h^{self}, the larger is the rate of exploitation within the household.

In Marxian theory, exploitation is described as the involuntary expropriation of surplus value. Surplus value is generated when the worker produces an output with a magnitude of value which exceeds the value that he or she is compensated for. When the capitalist class monopolizes control over the means of production, workers are forced into exploitative relationships due to a lack of opportunities outside of the market to obtain the means of survival. Marx believed that surplus value was created during the process of production, rather than as a result of unequal exchange on the marketplace, stating "circulation, or the exchange of commodities, begets no value" (1867, 114).

By starting with the theoretical perspective that gender interests, in addition to class interests, shape human behavior, feminist economists have extended this analysis of the ramifications of inequality in access to an independent livelihood to apply to gender and sex-based social relations as well (i.e. Folbre, 2009). This implies that the appropriation of surplus value can occur not only along class identities, but along gender identities as well. This patriarchal mode of production, as it has been termed, is defined by men's monopolization of the means of livelihood, and women's simultaneous deprivation from them (Folbre, 1987). This model draws upon the similarities with Marxist theory of exploitation to demonstrate how, like proletariat, housewives in Egypt produce a value with their labor that exceeds the amount of labor that she herself needs to sustain herself, with the surplus going instead to the remainder of the household.

In the family, therefore, exploitation stems from the personal domination by the patriarch over his wife. Although exploitation within the household differs qualitatively from

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exchange on a capitalist commodity market as Marx imagined it, the concepts of exploitation and surplus value are still applicable to an unequal intra-household distribution of resources. Therefore, applying the analysis of the creation of surplus value in household production, especially in the case of women who are denied alternatives, is a useful heuristic to understand the implications of patriarchy and its intersection with socioeconomic status.

Marx (1867) defines surplus value as

$$\frac{surplus\ value}{variable\ capital} = \left(\frac{s}{v}\right) = \frac{surplus\ value}{value\ of\ labor\ power} = \frac{surplus\ labor}{necessary\ labor}$$

From there, he derives the following equivalency:

$$\frac{surplus\ labor}{working\ day} = \frac{surplus\ value}{value\ of\ the\ product} = \frac{surplus\ product}{total\ product}$$

Using the above notations from, we can define surplus labor as the difference between total hours worked and total hours consumed, or

$$\frac{surplus\ value}{value\ of\ labor\ power} = \frac{Q_h^{total} - Q_h^{self}}{Q_h^{total}} = \frac{surplus\ labor}{necessary\ labor} = \frac{(L_h^{total} - L_h^{self})}{L_h^{self}}$$

$$\frac{surplus\ labor}{working\ day} = \frac{(L_h^{total} - L_h^{self})}{L_h^{total}} = \frac{surplus\ value}{value\ of\ the\ product} = \frac{(Q_h^{total} - Q_h^{self})}{Q_h^{total}}$$

The SES of the household is implicated in the determination of this remuneration in two crucial ways: as it pertains to bargaining power, and as it pertains to the determination of household labor that women engage in.

When women experience low bargaining power, their status and opinions are less likely to be valued relative to men's wellbeing in the household. Lower bargaining power implies a lesser "degree of women's access to (and control over) material resources (including food, income, land, and other forms of wealth), and to social resources (including knowledge, power, and prestige) within the family, in the community, and in the society at large" (Dixon, 1978, 6). Therefore, it would be expected that women from lower SES would have lower bargaining power, and therefore lower total consumption within the household as a fraction of her total output. In the above equations, this implies a decrease in the value of Q_h^{self}, leading to a higher degree of exploitation.

For example, suppose that one woman with low socioeconomic status generates a total value of output of domestic labor worth 100 units, but, because her economically precarious position denies her meaningful agency and bargaining power, is only allotted 20 units for her

own consumption. Additionally, suppose another woman with relatively high socioeconomic status produces 100 units worth of output with her domestic labor, but, because her position affords her greater bargaining power to allocate a portion of household resources, is able to consume 50 units for herself.

Using the above formula, it can be demonstrated that the woman with lower socioeconomic status will experience a greater rate of exploitation:

$$\frac{surplus\ value}{value\ of\ labor\ power} = \frac{Q_h^{total} - Q_h^{self}}{Q_h^{total}}$$

$$\frac{(100 - 20)}{100} = 80\%\ value\ appropriated$$

$$\frac{(100 - 50)}{100} = 50\%\ of\ value\ appropriated$$

A second way that socioeconomic status exacerbates women's exploitation within the home occurs due to the fact that women with lower SES face a greater probability of working longer hours due to a compromised bargaining position as a result of a lack of meaningful alternatives to the marriage (Kandiyoti, 1988). This translates into women working longer hours within the home, thereby generating a relatively higher surplus value compared to women from higher socioeconomic status, who enjoy greater autonomy in determining the hours worked within the home, or who can simply hire market replacements for domestic labor.

Using Marx's formula, it can be demonstrated that women from lower SES face a greater rate of exploitation as a result of a larger discrepancy between total hours worked for others' consumption in the household, and total hours worked for her own consumption. Results from the previous section demonstrate that for every 1-point decrease on the 8-point SES scale, housewives are likely to work an additional 0.77 hours of domestic labor. A housewife whose SES is in the bottom 12th percentile of the distribution is therefore more likely to work 5.4 hours of more domestic labor per week compared to a housewife in the top 12th percentile of the distribution. We can also assume, for the sake of isolating the relationship in question, that both women's necessary labor for their own subsistence is 20 hours per week. Plugging these numbers into Marx's formula demonstrates how women from lower socioeconomic status face a greater rate of exploitation:

$$\frac{surplus\ labor}{working\ day} = \frac{(L_h^{total} - L_h^{self})}{L_h^{self}} = \frac{(35.4 - 20)}{35.4}$$

$$= 44\%\ of\ working\ time\ spent\ generating\ consumption\ for\ others$$

$$\frac{surplus\ labor}{working\ day} = \frac{(L_h^{total} - L_h^{self})}{L_h^{self}} = \frac{(30 - 20)}{30}$$

$$= 33\%\ of\ working\ time\ spent\ generating\ consumption\ for\ others$$

c. Conclusion

In conclusion, this model synthesizes the Marxist theory of exploitation with results found in previous sections in arguing that women from households with lower socioeconomic status will be subjected to higher rates of exploitation within the household. By denominating all value created or exchanged within the household in terms of the hours of labor power, it becomes possible to determine whether the value of labor imbued in the goods that the husband provides to his wife is equal to the labor that she provides to her husband in exchange. The probability that $a_{ml} < 1$, meaning that the husband provides less than 1 hour of labor power worth of goods for each hour of labor power that he receives from his wife, increases concomitant with a decrease in SES.

Parallels can be drawn between the proletariat's virtual powerlessness to avoid an exploitative sale of their labor power and women's equally prohibitive exclusion from alternatives to marriage that may induce her to offer her labor power in exchange for economic provisioning from her husband. When women have higher SES, they will have more autonomy to make decisions for themselves, even when faced with opposition, and they will have more access to resources, making her threat to withdraw from an unequal marriage more credible. This results in a lower rate of exploitation for women from higher SES backgrounds compared to women without financial resource or human capital upon which she can draw in order to escape exploitation.

5. CONCLUSION

Mainstream economics models the household as a harmonious, altruistic unit, in which the preferences of the husband and the wife both weigh equally in the joint utility function of the household, and in which utility maximization for all members occurs. Since resource distribution within the household is assumed to be Pareto optimum, all inequality is explained as

being a voluntary choice that is made consistently with each member's preferences. That the model fails to incorporate the role of power or patriarchy in its explanation for women's unequal status in the household is even more concerning in light of the fact that millions of women rely on the household and marriage as a means of sustenance.

Feminist theory becomes instrumental in assessing women's situation in general, and in the case of Egypt in particular. Rather than inegalitarian marriages being a willing choice made by women who accept inequality as part of their identification with the role of a traditional subservient wife, feminists have demonstrated how a paucity of resources leads women to enter marriages that they would otherwise would not have if they had not been so materially deprived. However, in a patriarchal context, marriage is an institution designed to perpetuate the dichotomized rights and responsibilities accorded to either gender. Married Egyptian women who seek economic security from their position in the nuclear family are in turn expected to fulfill the role of a good housewife and mother, with the provision of domestic labor and the output of that labor becoming a necessary condition for establishing her rightful place in the patriarchal marriage. This can lead to exploitative conditions, with the rate of exploitation growing in proportion to a decline in SES. This paper has argued that it is through the channel of bargaining power that this exploitation is facilitated.

Literature reveals that women's bargaining power in the household varies considerably with the socioeconomic status of the household for several reasons. First, women from lower SES households are less likely to have the resources, such as educational attainment, savings, financial assets, employment, or an otherwise alternative source of income in order to credibly withdraw from marriages that treat them unequally. Secondly, lower SES households are less likely to recognize the contributions that women make to family welfare, thus undermining her opinions and well-being. Thirdly, women may lack the cognitive resources, such as understanding the importance of women's equality or human rights, or how to voice dissent against unequal resources, when they come from lower SES backgrounds, and particularly in instances when she has low educational attainment.

Using probit and linear regression analysis, I have demonstrated that this relationship holds for Egyptian women. Depending on the resource in question, women from the top 12th percentile of the SES index distribution are between 9.1 percent and 33.6 percent more likely to participate in the decision-making process over the distribution of resources within the household, including time resources, compared to women from the bottom 12th percentile.

Additionally, for every 12 percent improvement in SES, the average amount of time spent on domestic labor falls by 0.77 hours. Women from the top 12th percentile of the SES distribution will therefore perform, on average, 5.39 hours less domestic labor, or around 18 percent less than the average hours reported, compared to work from the bottom 12th percentile. This relationship holds even after controlling for the presence of productivity-enhancing appliances in the household and whether or not the wife is employed. I interpret these results as being consistent with previous empirical studies which demonstrates that SES is a proxy measurement for both the financial and intangible resources that allow women to better negotiate to have their interests met in marriage, or to withdraw when they are not met.

To elaborate on this relationship, I offer a Marxian model of exploitation in the household, and how SES impacts the rate of exchange between the husband and wife. In households with low SES, the amount of labor imbued in the goods that the husband trades with his wife is more likely to be less than the labor that his wife provides him and the household. That is, the production coefficient of the model, a_{ml} is more likely to be less than 1, indicating that for every hour that the wife provides in domestic labor, she receives less than one hour's worth of goods from her husband, the sole wage earner in the family.

This model demonstrates the manner in which patriarchy operates in Egypt, namely to isolate women from opportunities to earn income or resources outside of the marriage, is compounded by poverty. In addition to gender roles, power also stems from the resources that each spouse contributes to the household, thus entrenching women's dependent and vulnerable status. Women's SES is theorized to exacerbate exploitation within the household in two particular areas. First, women from lower SES households will consume, on average, less of the total output that they produce than women from higher SES households. Secondly, the former group of women are more likely to spend more time in household production for others' consumption rather than their own consumption, compared to the latter group.

One obvious limitation of the model that I have presented is the fact that it relies on the strict assumption that there is only one income earner in the household, who alone faces the rate of trade off between self-consumption and other consumption. While this critique is valid, the model nevertheless represents an important first step in analyzing the dynamics of exploitation within households of this structure, given that the patriarchal bargain continues to affect millions of women who are foreclosed from means of economic security outside of marriage. Furthermore, this model is particularly relevant for the Egyptian household, which I have

empirically demonstrated to exhibit systematic forms of disempowerment of women from the bargaining process in terms of the access to, and control over, resources, and determining the hours of domestic labor that women work. In Egypt, 77% of households are comprised of a single (male) wage earner and a (female) unpaid spouse who engaged in household production, hence the motivation for this model and its applicability to the case study in question.

Future research should seek to extend this model to incorporate the role of outside resources in empowering women within the household, including when women are employed. Additionally, work should be undertaken to specify, even empirically, the socially necessary abstract labor time of domestic labor, in order to more precisely measure rates of exploitation within the household.

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