The Cycle of (Legal) Violence? Child Abuse and Military Aspirations

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Most prior research on military enlistment has focused on characteristics that can be used to identify potential recruits, but has rarely looked at the psychological histories of those recruits. Data on Wisconsin seniors in 1957 from the Wisconsin Longitudinal Study was used to build a large profile of socio-economic controls for testing the "cycle of violence" hypothesis – that physical abuse in childhood leads to violent adult impulses – as manifested through aspirations for a military career. Results were generated using a probit model with reported military aspirations as the dependent variable. For (mostly Caucasian) male Wisconsin respondents in 1957, retrospective self-reports of physical abuse by the respondents' fathers was associated with an (average) increase in probability of an aspiration to a military career of approximately 8%, which may be underestimated due to underreporting of abuse. The relationship of military aspiration to verbal abuse and physical abuse by the respondent's mother was unclear, likely due to collinearity or alternative, negative abuse outcomes that make military life unappealing. There are two significant implications to these results: first, that military employment serves as a psychologically similar but alternative outcome to domestic abuse or violent crime, except without the associated stigma; and second, that military life presents challenges that reward psychological adaptations and defenses deriving from childhood victimization, thereby increasing its appeal to child abuse victims.

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I. Child Abuse and Military Aspirations: Introduction

Economic status is probably the best known factor affecting a young male's probability of enlisting in the military. But what about economic status affects one's decision to join? It may well be that low family income, while providing financial incentives for military service, is also correlated with other factors that may motivate enlistment. Most other literature on military enlistment focuses on youth enlistment decisions from a standpoint of any identifiable characteristics that can be used to predict placement, but not from a causal standpoint. Some characteristics cited in prior studies include whether a student has college plans while in high school, but this does not help answer why those who were more likely to enter the military *did not* have college plans. Using the Wisconsin Longitudinal Study (WLS), a survey of 1957 Wisconsin High School seniors' backgrounds and life choices, this study finds evidence for another significant predictor of military enlistment: child physical maltreatment.

An army survey of literature on enlistment propensity concluded that there is a set of "critical and stable" variables affecting one's likelihood of enlisting: historical interest (familial military ties, or exposure to media); floundering, or an absence of goals or direction; desire for self-improvement, excluding economic concerns; job/skill training; money for education; time out, as a means of buying time to plan one's career and life; escape from adverse circumstances; and an absence of other jobs and prospects (Lawrence & Legree, 1996). Other studies have found that lower family incomes, larger family sizes, and less-educated parents are more likely to produce military recruits (Kilburn & Asch, 2003; Kilburn & Klerman, 1999). In contrast, another study, surveying 2,213 young men between 1966 and 1970 from the beginning of tenth grade to one year after high school, concluded that there is "no single military type," with enlistees not being characterized by any particular profile or background, ability, or personality (Johnstone & Bachman, 1974).

A mostly neglected explanatory variable in enlistment studies is the prevalence of child abuse. The effects of child abuse on the propensity to engage in criminal and domestic violence, are well-documented. Widom (1989) is one of many longitudinal follow-up studies that support the "cycle of violence" hypothesis, which states that childhood victimization results in the repetition of that violence in adulthood. Forms of child maltreatment besides physical abuse and neglect also play a role. Vissing, Straus, Gelles, and Harrop (1991) analyzes a representative sample of 3,346 American households with a child under 18, showing that children experiencing frequent verbal aggression displayed higher rates of physical aggression, delinquency, and other interpersonal problems, irrespective of age, gender, or the presence of physical punishment; children who experienced both verbal aggression and severe physical punishment demonstrated the highest rates of physical aggression, delinquency, and other interpersonal problems.

Childhood trauma has been shown to have significant neurobiological effects, which have been extensively studied. Levels of the neurotransmitter serotonin—which plays an important role in modulating anger, aggression, and mood, among other things—are reduced by trauma, and are unsurprisingly found in reduced levels in antisocial adult individuals (Raine, 1996). The weaker presence of serotonin's inhibiting ability provides less control over impulsivity, and thus increases the likelihood of violent behaviors.

Because the military is an institution with violence at its core, it is reasonable to posit some similarity between the institutionalized violence employed by the military and other adult violence, at least *vis-à-vis* an individual's attraction to a certain kind of behavior or role. Other aspects of the military as an institution can also play a part in an individual's attraction to the armed forces. The military establishment can be perceived to have certain characteristics and/or believed virtues, such as hierarchical command, authoritarian rules, rigid discipline, self-denial and self-sacrifice, camaraderie, and service of a collective ideal (e.g., nationalism). Military life can be seen as offering a sense of accomplishment, self-improvement, respect from comrades and non-military peers, excitement and adventure, and altruistic moral fulfillment. These ideas about the military reach the non-military population through military recruitment efforts, media portrayals, and familial and social word-of-mouth, which in turn influence career aspirations among youth.

Because an aspiration to a military life requires prior values which entail an affinity to it, the causal sources of those values can also be effective predictors of military aspirations. Whether the real source of values is ultimately societal or not, childhood experiences with one's family can account for significant variation in one's personal values. For example, the relationship between authoritarian child-rearing and a punitive adult mindset is well-documented. For example, Milburn and Conrad (1996) find a relationship between high reported levels of punishment, and support for the death penalty and the use of military force.

The existing composition of the military may also reflect some role of child abuse in military enlistment. The substantially victimized histories of military recruits are not undocumented. A 1996 study of the U.S. army found that 50% of female soldiers and 17% of male soldiers reported childhood sexual abuse; 50% of both males and females reported physical abuse; and 34% of females and 11% of males reported both (Rosen & Martin, 1996). According to data from the National Data Archive on Child Abuse and Neglect (NCANDS) in 2006, following a significant increase in the number of child abuse reports in the previous decade, only 3.6 million persons under the age of 18 were investigated for child maltreatment in general, with only 905,000 of those cases being substantiated, implying a *general* maltreatment rate of approximately 1.2%. Unfortunately, finding statistically reliable population base rates of child abuse is a significant challenge. NCANDS is widely criticized for vastly under-reporting real abuse

rates, the primary evidence being the vast discrepancy between state and federal-level child abuse numbers and those of individual studies. Nonetheless, the WLS sample corroborates the gulf in abuse statistics between military recruits and non-military recruits; for example, military recruits have a 32.2% rate of self-reporting physical attacks by their fathers, compared to the 18.8% rate of non-recruits.

From the above, it is reasonable to hypothesize that more abusive households are more likely to generate military recruits, other things equal. This is because the effectiveness of the aforementioned psychological appeals of joining the military certainly varies with familial background, particularly in the realm of child punishment and conflict resolution. Underlying this intuition is the concept of "poisonous pedagogy" originally introduced by Rutschky (1977), using "pedagogy" in the broader sense of "raising children." The term generally encompasses behaviors and communications toward children that have a violent or manipulative character—presumably aimed at altering and forming behavior patterns—such as corporal punishment, withdrawal of affection, and denial of basic needs. Rutschky initially derived the concept from common German child-rearing science which dictated such methods. Miller (1984) uses the term to denote emotionally damaging child-rearing practices that promote harmful adult behavior.

However, both psychological theory and empirical research do not point to an inevitable causal relationship between child maltreatment (especially physical and verbal abuse) and future adult violence. There may be intervening factors that affect adult outcomes of otherwise similar cases of abuse. Furthermore, violent behavior is not the only possible outcome of abuse; abuse has also been shown to manifest itself in alternative ways, such as self-destructive behaviors, withdrawn or dissociative personalities, depression, or even suicidal tendencies (Widom, 1989).

Regarding military aspiration and enlistment, there are further variables to cloud the relationship. The inherently violent nature of the military as a war-maker, which is posited here as a substitute for other violent aspirations, can be clouded by the peacetime and economic roles of the military. The simple fact that militaries typically command a large amount of resources helps explain this; in 1957, the relevant year for the sample used in this study, the U.S. Department of Defense commanded approximately 10.1% of the U.S. Gross Domestic Product. While there is something that remains to be said about why military support roles are psychologically separated from the military's combat roles, the large proportion of non-combat aspects of the military is expected to make the relationship between child abuse and military aspiration far less direct than that for child abuse and criminal violence, for example.

The central contribution of this study is the incorporation of a dimension absent in the economic literature on enlistment, which has to this point neglected the emotional aspect of entering a career field as distinct as the military. Further, this paper will help

empirically test theories that link violent adult behavior—among other things—to childhood abuse.

Methodology and Data

The Wisconsin Longitudinal Study is a random sample of 1957 Wisconsin high school graduates, following respondents over time. The data set contains information on the life of the respondent in 1957; their educational, marriage, and career decisions; their social background; and their physical and mental well-being, among other things. The central concern of this study is how family background predicts military aspirations, which in turn affect military enlistment. Besides asking whether a respondent planned future employment by the military in 1957, the WLS also polled respondents for information on the presence of physical and verbal abuse in the household in 2003-2005. Beyond that, the WLS has even better information than many other samples on intelligence, access to financial resources, and academic performance and interest, all of which help predict non-military post-high school choices (primarily, college or employment).

The chief drawback to the data is that it is a survey. This is not a major issue when it comes to "hard" facts, like income. However, much of the survey is extremely subjective, in two senses. First, many answers have a 4-tiered scale consisting of "None, a little, often, always" or something similar. Second, many of the questions can generate unreliable answers from a psychological standpoint, as they rely on heavily subjective interpretations of the question. Because this study focuses so heavily on psychology, the best way of sidestepping this problem is ignoring "graduations" of answers to phenomena (like "did your father slap you during your first 18 years of life?") and simply make them "Yes" for any non-"never" answer, and focusing primarily on variables that are simple facts and nothing requiring emotional or value judgment (the presence of slapping is a good example of this). Despite these attempts, a high level of under-reporting is still expected.

Under-Reporting and Subjective Interpretation

The under-reporting of key abuse-related variables is an expected issue with the WLS survey data. Several studies have pointed to child maltreatment statistics being under-reported not only at the aggregate level, but also at the self-reported level across dimensions of both occurrence and severity. Respondents may interpret terms for frequency (e.g., "a little," "sometimes," "always") or terms which they perceive as carrying normative import (e.g., "abuse," "insult") according to their own subjective and unmeasured standards, which themselves may have some causal relationship to their abuse. Furthermore, respondents may simply under-report even more objectively measurable experiences (like physical contact) for a variety of reasons.

The most notable evidence for under-reporting comes from comparing known cases of child abuse to adult accounts. Brown, Cohen, Johnson, and Salzinger (1998) compares a representative sample of New York State child maltreatment records with a retrospective self-report study of young adults (18 and older) gathered in 1992, finding that of 46 cases of maltreatment reported and substantiated by state records, 27 were unconfirmed by youth self-reports. In a sample of open cases from a Canadian child protection agency, McGee, Wolfe, Yuen, Wilson, and Carnochan (1996) finds that while the occurrence of physical maltreatment was reported more frequently by adolescents than agency officials assigned to the cases, adolescents also reported significantly less family violence, emotional maltreatment, and neglect than officials did. Widom and Shepard (1996) and Widom and Morris (1997) suggest that a significant fraction of individuals who were victims of child abuse do not report that abuse in adulthood, with males more strongly exhibiting this pattern. Other studies that have examined the correspondence between known abuse cases and adult reports of abuse include Herman and Schatzow (1987), Finkelhor (1994), and Maughan, Pickles, and Quinton (1995), all of which found substantial under-reporting of abuse experiences.

The WLS also provides some exploitable information on maltreatment through a subsample of selected siblings that also provided information about family of origin interactions. Sibling respondents were presented with the following prompt before the survey questions: "The following questions are about how you, your brother or sister who graduated from high school in 1957 (original sample member), and your parents (or the persons who raised you) treated each other during the first 16 years of your lives." The subsample contains 4 similar questions about verbal and physical maltreatment by each parent, so the sibling responses can be compared with the respondent's answers. Where the sibling reported an occurrence but the respondent did not, for purposes of estimation the respondent is incorporated as having reported the occurrence. This represents the correction of only "false negative" reports of abuse. Prior research supports this "oneway" interpretation of reports of maltreatment-related occurrences. Fergusson, Horwood, and Woodward (2000) finds that the unreliability of self-reports of child abuse is primarily caused by false negatives, with an absence of false positives. This implies that while abuse victims may under-report, non-victims will almost never report exposure to abuse, allowing physical and verbal maltreatment statistics in the WLS sample to be reasonably augmented upward based on information in the selected sibling subsample.

One way of capturing the effects of abuse signaled by underreporting is by actually examining the gulf between subjective reports of objective occurrences and subjective evaluations of those occurrences as abuse. For example, given that a respondent has admitted that his father slapped him, we can examine his answer to the question "Upuntil you were 18, to what extent did your father treat you in a way that you would now consider physical abuse?." Including it in the estimation could capture some information about the effects of recognizing abuse. While there is a general hypothesized link

between abuse and military enlistment, it is expected that greater recognition of abuse by an individual reduces the effects of that abuse. Section II will incorporate estimates of the effects on military aspiration of acknowledging abuse.

II. Estimation

Summary Statistics

Respondents are divided into two groups according to whether they indicated in 1957 that they *intended* to join the military. Using respondent intentions rather than an indicator for whether the respondent ever joined the military avoids selection problems by measuring a stated preference prior to any significant life changes (some of which are likely to be endogenous) that may preclude following through on these aspirations. The fraction of those with military aspirations is nonetheless quite high. Almost 62 percent of respondents in the sample who said in 1957 that they planned a military career (or otherwise planned to enter military service after high school) ended up joining voluntarily, and only 34 percent of these respondents joined the Reserves or National Guard

Table 1 provides some key summary statistics for the whole sample of 4,867 male individuals. Of these, 28.37 percent reported military aspirations. The summary statistics are consistent with intuition; military aspirations were associated with higher numbers of siblings and probability of child abuse, and lower levels of income, IQ, grades, and teacher evaluations.

Results

Table 2 estimates probit regressions in which the dependent variable is binary, equal to one if the respondent indicated military aspirations and zero otherwise. The regressions make use of five different dummy variables indicating the presence household physical and verbal abuse, along with a series of controls based on prior literature for economic and ability measures. Collinearity concerns lead us to estimate first the effects of physical abuse by the respondent's mother and father separately from those of verbal abuse. Because of the possibility that some controls are significantly affected by abuse and thus affect aspirations in an intermediate fashion, columns (1) though (3) use estimates without incorporating grades, intelligence, teacher evaluation, peer influence, and teacher/counselor influence. These results may somewhat overstate the causal effect of abuse on aspirations, because they attribute to abuse some effects of variables that may be correlated with but not completely determined by abuse. Columns (4) through (6) include these intermediate effects, and so may somewhat understate the causal influence of abuse.

Table 1. Summary Statistics for Key Regressors. (males-only)

| | Full sample | Didn't plan military career in HS | Planned military career in HS |
|-----------------------------------|-------------|--------------------------------------|-------------------------------|
| | * | | |
| # of living siblings | 4411 | 2.84 | 3.126 |
| Parental Income | 4622 | \$6,653 | \$5,615 |
| IQ | 4867 | 60.84 | 53.316 |
| HS grade rank | 4520 | 47.02 | 33.834 |
| Dummy Variables (% = 1) | | | |
| Teacher eval. "outstanding" | 4867 | 11.59% | 3.91% |
| Mother employed? | 4421 | 35.28% | 37.40% |
| Slapped by Mother? | 2894 | 25.11% | 27.80% |
| Slapped by Father? | 2965 | 33.57% | 40.61% |
| Slapped by both? | 2859 | 18.07% | 20.79% |
| Insulted by father? | 2972 | 34.23% | 41.85% |
| Insulted by mother? | 2900 | 16.79% | 16.69% |
| Saw parent/sibling beaten in home | 3003 | 14.42% | 18.15% |
| Number of observations: | 4,867 | 3,486 | 1,381 |

The general results mostly confirm the expected role of economic factors. Parental income is significant and negative, as is the effect of a parental pledge for full financial support for college. Also, an absence of perceived parental influence was associated with an increased likelihood of military aspiration. Of the intermediate effects, high school grades, peer influence, and teacher/counselor influence were significant and negative, except where the respondent perceived that his friends had plans to enter military service (significant and positive). One seemingly paradoxical result is the strong positive effect of being an only child, which, other things equal, would mean a relaxation of resource constraints. Ultimately, inferences about these variables may themselves be obfuscated by high levels of collinearity. However, the purpose of their inclusion is to serve as controls in identifying the effects of child abuse.

The results show some impact of child abuse, and somewhat surprisingly there is no systemic change in the results after including intermediate effects. Physical abuse by the father is included in four specifications, and in each case it is found to positive and

Table 2. Probit Regressions: Military Aspirations and Abuse

Dependent Variable: 1 = Respondent plans military career or to enter military after graduation

| | No Intermediate Effects | | | Intermediate Effects Included | | |
|--|--------------------------|----------------------|----------------------|-------------------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Family variables | | | | | | |
| Slapped by father? | 0.215*** (0.082) | | 0.189** (0.092) | 0.263*** (0.094) | | .260*** (0.105) |
| Slapped by mother? | -0.059 (0.085) | | 0.054 (0.095) | -0.103 (0.096) | | .007 (0.106) |
| Insulted by father? | | 0.136* (0.079) | 0.059 (0.089) | | .142 (.089) | .030 (0.100) |
| Insulted by mother? | | -0.251** (0.101) | -0.290*** (0.113) | | 272** (0.113) | 299*** (.125) |
| Saw parent/sib beaten in household? | 0.119 (0.099) | 0.181* (0.098) | 0.135 (0.101) | 0.127 (0.112) | .210** (0.111) | .148 (0.114) |
| Age of Head | -0.007 (0.006) | -0.008 (0.006) | -0.008 (0.006) | -0.002 (0.007) | -0.003 (0.007) | -0.003 (0.007) |
| Parent income in 1957 | -0.002** (0.001) | -0.002* (0.001) | -0.002** (0.001) | -0.002* (0.001) | -0.002* (0.001) | -0.002* (0.001) |
| Father's Occ. Prestige | -0.004 (0.004) | -0.003 (0.004) | -0.003 (0.004) | -0.006 (0.004) | -0.005 (0.004) | -0.005 (0.004) |
| Parents don't care if R goes to college? | 0.419*** (0.075) | 0.424*** (0.074) | 0.412*** (0.075) | 0.277*** (0.088) | 0.282*** (0.088) | 0.271*** (0.088) |
| Parent offers full \$ for college? | -0.207** (0.105) | -0.208** (0.106) | -0.212** (0.106) | -0.262** (0.120) | -0.265** (0.121) | -0.265** (0.121) |
| R perceives no parental influence on future? | 0.227** (0.107) | 0.219** (0.107) | 0.226** (0.108) | 0.258** (0.121) | 0.259** (0.121) | 0.262** (0.122) |
| Mother work? | 0.123* (0.073) | 0.136* (0.073) | 0.134* (0.073) | 0.099 (0.084) | 0.116 (0.084) | 0.111 (0.084) |
| Female Head of Household? | -0.042 (0.227) | -0.025 (0.227) | -0.027 (0.227) | -0.116 (0.271) | -0.078 (0.271) | -0.109 (0.272) |
| Only child? | 0.379*** (0.138) | 0.358*** (0.137) | 0.381*** (0.138) | 0.398*** (0.156) | 0.385** (0.156) | 0.400*** (0.156) |
| First born? | 0.083 (0.079) | 0.075 (0.079) | 0.084 (0.080) | 0.145* (0.090) | 0.140 (0.090) | 0.148* (0.091) |
| Brother/Sister Ratio | 0.002 (0.002) | 0.002 (0.002) | 0.002 (0.002) | 0.003 (0.002) | 0.003 (0.002) | 0.003 (0.002) |
| College Preparatory School? | - 0.247*** (0.076) | -0.248*** (0.076) | -0.255*** (0.077) | 0.011 (0.094) | 0.012 (0.094) | 0.005 (0.095) |
| Catholic School? | 0.137 (0.116) | 0.097 (0.116) | 0.110 (0.117) | 0.118 (0.137) | 0.076 (0.137) | 0.089 (0.138) |

| | No Intermediate Effects | | | Intermediate Effects Included | | |
|---|-------------------------|---------------|---------------|-------------------------------|----------------------|----------------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Intermediate Effects | | | | | | |
| Grade rank | | | | -0.008*** (0.002) | -0.008*** (0.002) | -0.008*** (0.002) |
| IQ | | | | 0.003 (0.002) | 0.003 (0.002) | 0.003 (0.002) |
| Teacher eval. student as "outstanding"? | | | | -0.006 (0.146) | -0.026 (0.145) | 0.002) 0.002 (0.146) |
| Friends going to college? | | | | -0.186** (0.095) | -0.178* (0.095) | -0.176* (0.095) |
| Friends going into mil. serv.? | | | | 0.512*** (0.104) | 0.513*** (0.104) | 0.518*** (0.105) |
| Talk to teacher or counselor much about future? | | | | 375** (.174) | 373** (.174) | 376** .175 |
| Talk to teacher or counselor some about future? | | | | 136 (.090) | 148* (.090) | 150* (.091) |
| Pseudo R ² No. of obs. | 0.098 1794 | 0.097 1800 | 0.100 1790 | 0.159 1523 | 0.158 1526 | 0.162 1519 |

Note: Standard errors in parentheses. Estimates are from a probit regression. All regressions include control for region of respondent's Wisconsin residence in 1957, mother and father's education levels, and father's nationality. 'R' denotes 'Respondent.' * Significant at the .1 level. ** Significant at the .05 level. *** Significant at the .01 level.

strongly significant effect; on average, it yielded approximately an eight percent increase in the probability that a respondent aspired to military employment after high school.² Verbal abuse by the respondent's father also is found to induce military aspirations. In the two specifications in which physical abuse by the father is omitted, the effect is quite large, although it is statistically significant in only one of them. When physical abuse by the father is included in the specification, the effect of verbal abuse is much diminished, no doubt a result of the high positive correlation between the two forms of abuse.

Reported maternal insults are associated with a decrease in probability of slightly higher magnitude, which contradicts expectations. There are a few conjectures regarding this surprising result. First, measures of abuse for any given household are typically highly collinear, and the WLS data set is no exception (see Table 3). However, the continued

² This figure was estimated by using the predict command in Stata, then evaluating the mean difference in probability between the abused and non-abused group.

significance and the stability across specifications of the coefficient on maternal insults discounts multicollinearity as an explanation.

Table 3. Correlation Matrix for Abuse Variables

| | Slapped by Father? | Slapped by Mother? | Insulted by father? | Insulted by mother? | Saw par/sib beaten in home |
|-------------------------------------|-----------------------|-----------------------|---------------------|---------------------|----------------------------------|
| Slapped by Father? | 1 | | | | |
| Slapped by Mother? | 0.4662 | 1 | | | |
| Insulted by father? | 0.5077 | 0.2325 | 1 | | |
| Insulted by mother? | 0.2425 | 0.4510 | 0.3863 | 1 | |
| Saw par./sib. beaten in home? | 0.3535 | 0.2256 | 0.3349 | 0.2058 | 1 |

A second possibility reflects alternative (though still harmful) outcomes of abuse. Kernis, Paradise, Whitaker, Wheatman, and Goldman (2000) find that low levels of self-esteem in 11-12 year old children are significantly associated with derogatory name calling and criticism by their parents. And, while low self-esteem is associated with aggressiveness and hostility, it is also associated with delinquency and mental health problems (Greenberg, 2008), which may preclude acceptance by the military. Although the regressions in this paper use military aspirations as the dependent variable, it is possible that respondents who expect to be unable to enter the military choose not to aspire to join. Unfortunately, absent adequate instruments for military aspirations, there is no clear to evaluate whether this second possibility could explain the negative coefficient on maternal insults.

A third possible explanation is reporting bias similar to that discussed earlier. Some respondents characterize parental criticism as insults because they experienced criticism that was indeed abusively harsh and frequent. However, others may have experienced criticism that does not rise to the level of abuse, but their temperament or beliefs make them unusually sensitive and predisposed to characterize even modest criticism as abuse. The latter type of respondent is likely also to have a temperament that makes him less likely to develop military aspirations. Conversely, those who do have military aspirations may be more prone to fail to characterize abusively harsh and frequent criticism as

insults. This may not only account for the negative coefficient on maternal insults; it may also lead to an underestimation of the effects of paternal abuse on military aspirations.

There is some direct evidence that abuse recognition is associated with decreased military aspirations. Recall that WLS respondents were asked two different questions about physical violence by their fathers: "Up until you were 18, to what extent did your father slap, shove or throw things at you?", and "Up until you were 18, to what extent did your father treat you in a way that you would now consider physical abuse?" The latter question helps separate the respondent's recollection of their parents' actions from their judgments about those actions. Under the hypothesis of the third explanation, a respondent's recognition of physical violence as abuse is a signal of his attitude toward violence as lying outside a normal or acceptable context. Thus, among respondents who reported acts of physical violence by their fathers, it is expected that those who recognized it as abuse would have been less likely to aspire to a military career. To test this, the same regressions as in Table 2 plus an abuse recognition dummy can be run, except with the sample restricted to cases where the respondent reported attacks by his father. Consistent with this study's hypothesis, the results (see Table 4) show evidence of a negative relationship between abuse recognition and a decreased inclination for military employment. This effect is larger and statistically significant after including intermediate effects. The marginal effects on the probability of military aspiration by the abuse recognition dummy were -9 percent, -14.4 percent, and -13.8 percent for columns 4, 5, and 6 respectively.

III. Conclusions

Military aspiration among 1957 male Wisconsin high school seniors was found to be significantly and positively related to the presence of physical violence in the household, negatively related to parental concern for the respondent's future, covariant with peer choices, negatively related to access to economic resources, and negatively related to teacher/counselor involvement. Despite including a wide range of controls, physical abuse by one's father accounted for significant positive variation in military-related plans. Furthermore, among those who had experienced physical violence at the hands of their fathers, those who had described this treatment as physical abuse were significantly less likely to have military aspirations. The relationship between abuse by one's mother and military aspiration was rather less clear, especially relative to prior findings.

Lawrence and Legree's (1996) suggestion that "escape from adverse circumstances" is one reason why someone may join the military could explain the positive relationship between abuse and military aspiration. However, this cannot be a complete explanation. It implies that those who were escaping abuse by seeking military employment would have been more willing to recognize it as abuse, an implication that is not borne out by this study.

Table 4. Probit Regressions: Military Aspiration and Abuse Acceptance/Denial Dependent Variable: 1 = Respondent plans military career or to enter military after graduation

| _ | Father slapped/shoved/threw things at R? = 1 | | | | | | |
|---|--|-------------------|-------------------|-------------------------------|----------------------|--------------------|--|
| | No Intermediate Effects | | | Intermediate Effects Included | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | |
| Family variables | | | | | | | |
| Father treated R in a way R considers physical abuse? | -0.096 (0.121) | -0.167 (0.139) | -0.134 (0.141) | -0.274** (0.142) | -0.453*** (0.166) | 414** (0.170) | |
| Father insulted/swore at R? | | | -0.094 (0.130) | | | -0.112 (0.154) | |
| Saw parent/sib beaten in household? | | 0.145 (0.140) | 0.140 (0.141) | | 0.356** (0.165) | 0.351** (0.167) | |
| Pseudo R ² | 0.114 | | | 0.192 | 0.199 | .199 | |
| No. of obs. | 653 | | | 554 | 554 | 553 | |

Note: Standard errors in parenthesis. Estimates are from a probit regression with the same specifications as in Table 2, except for the abuse-related variables. * Significant at the .1 level. ** Significant at the .05 level. *** Significant at the .01 level.

There are a few important caveats to these results. The first is that they are derived from relating reports of employment aspiration made in 1957 to reports of home life prior to 1957 made forty to fifty years later. This sizeable temporal gap leaves open the obvious possibility that military life reinforces pre-existing, or perhaps even establishes, less critical standards for child maltreatment, or somehow otherwise colors respondents' reports of home life. More generally, life experiences and the process of aging may have significantly affected survey responses. However, there is a significant collage of evidence against the possibility that this has caused biased results. First, some research supports the notion of self-selection into military service, and that actually serving may not significantly alter prior attitudes (Bachman, Sigelman, & Diamond, 1987). How exactly the data would be inaccurate is also important; studies like Fergusson et al. (2000) have primarily pointed to significant under-reporting as being the exclusive source of unreliable self-reported abuse data. If the effects of military life or aging would make

the data further under-reported, it would also mean that the results above would be even stronger in a more accurate set of data.

Mood-congruent bias could play a role. For example, depressed subjects may be more likely to recall negative experiences, which could cause an exaggerated effect. However, several studies have found little to no support for this hypothesis (Brewin, Andrews, & Gotlib, 1993; Maughan, Pickles, & Quinton, 1995; Robins, Schoenberg, Holmes, Ratcliff, Benham, & Works, 1985). Also, a prior study using child abuse data from the WLS has controlled for this possibility, finding no effect (Springer, Sheridan, Kuo, & Carnes, 2007). Generally, if mood-congruence causes under-reporting, the possibility actually strengthens these results. If it causes over-reporting, some of that variation would be lost with the elimination of subjective magnitudes, leaving two possibilities: a regular habit of under-reporting abuse is contradicted, thus improving sample accuracy, or upward variation in subjective magnitude is ignored by the methodology used here. The only case that would have an effect would be a fabricated memory (i.e., a "false positive").

Finally, the measures of childhood abuse used in this study were limited in scope; only five were available, and subjective magnitudes were eliminated due to the noisy information provided by them. However, they are similar to the well-known and frequently-used measures of the Conflict Tactics Scale (Straus, Gelles, & Steinmetz, 1981). Also, the measures from the WLS have also been used in prior studies with some success (Springer, et al., 2007).

In closing, this study takes existing knowledge about the relationship between child abuse and adult violence and tests its relevance to military enlistment. Its results may have two key implications. First, membership in the military may psychologically function as a (short-run) alternative outcome to violent crime or domestic abuse, except with legitimacy under the law and positive social standing. Second, military life may present situations and challenges that reward psychological adaptations and defenses that derive from childhood victimization, thereby increasing its appeal to child abuse victims. Despite the high profile the military retains in society today, both in terms of the power it wields and the resources it commands, little has been done to examine the pre-enlistment psyche of those who join, beyond that of job performance.

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