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RESEARCH

Clothing, Sublimation, and the Enjoyment of War

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Abstract
Intergroup aggression occurs in many animal species but warfare has no clear non-human analogues. Among the features distinguishing war is that despite its obvious disadvantages and horrors, war enjoys enormous psychological appeal, illustrated by its entertainment value. The enjoyment of war presents a challenge for explanatory models, which range from adaptive scenarios in evolutionary paradigms to social learning and psychological drive theories. Further problems arise from findings in ethnography and archaeology. Among mobile hunter-gatherers who led traditional lifestyles, warfare was less common in socially non-complex contexts and, arguably, warfare was absent where people were routinely naked. In prehistory, warfare may be limited to the recent evolutionary past. A speculative formulation is outlined, positing a contributary role for sublimation, as a psychological effect of clothing. The proposed role of sublimation in the enjoyment of war allows for a more nuanced perspective on archaeological, ethnographic, and phenomenological evidence, suggesting warfare is not necessarily synonymous with intergroup aggression and its enjoyment could be contingent on the routine presence of clothing.

Keywords Psychology · Aggression · Sexuality · Ethnography · Archaeology

Introduction

War can be easy or difficult to explain, depending on theoretical perspective and interpretation of evidence — with theory and evidence not independent. Whether war is easy or difficult to explain will depend also on how war is defined and what evidence is deemed relevant, which again is not independent of theoretical perspective. Easy explanations for war fall into two categories. First is an evolutionary view, which emphasizes the similarities between human warfare and the intergroup aggression witnessed in other animal species. Second of the easy (relatively speaking) explanations is a social learning view, which stresses the role of society in promoting or discouraging war. Difficulties arise for two reasons. The first relates to ambiguities in the available evidence, primarily in prehistoric archaeology and ethnography (especially hunter-gatherer studies). A second difficulty is

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whether explanatory models, alone or in combination, need to account for perhaps the most enigmatic aspect: human enjoyment of war.

A new psychological model is proposed which addresses both difficulties: the issues with evidence and the enjoyment of war. The model invokes a psychological process not hitherto identified with aggression, namely, sexual sublimation, in a contingent relationship with the advent of clothing in recent human prehistory. Clothing underpins sublimation due to its inhibitory effects on sexuality: sexual shame, or modesty (Gilligan, 2023a) and restriction of sexual behaviour (Gilligan, 2023b).

Before outlining how clothing could foster enjoyment of war through sublimation, the three leading explanatory models — evolutionary, societal, and psychological — are summarized. Following a literature review, the scientific evidence base is examined, beginning with ethology (animal studies). The archaeological record is then explored for evidence of prehistoric war, and ethnographic (cross-cultural) evidence is evaluated regarding the presence of warfare in recent hunter-gatherer communities. The evidence base is augmented with anecdotal accounts of battle experience, which hint at the problematic enjoyment of war and intimate that human warfare is not always equivalent to intergroup aggression.

Definitions of War

As an organized form of group-level aggressive behaviour that occurs between members of the same species, opinion differs as to whether the term 'war' can (or should) be restricted to *Homo sapiens*. There is a tendency in the literature to conflate warfare with intergroup aggression, which occurs in many animal species. However, if war does differ in one or more fundamental respects from intergroup aggression in other species, it may be disingenuous to speak of warfare in other species and, by inference, equate war with intergroup aggression – in in other words, a case of reductionism.

The *Concise Oxford English Dictionary* defines warfare as 'engagement in or the state of war', with 'war' defined as follows:

> a state of armed conflict between different countries or different groups within a country (Stevenson & Waite, 2011, p. 1628).

According to the above definition, warfare may not be synonymous with intergroup aggression in non-human animal species. Technically, warfare would be exclusive to *H. sapiens* and, more specifically, to complex human societies, since it is defined in relation to countries — by implication, societies with hierarchies if not state-level organization. However, social hierarchies are present in other species, and group territories can correspond to countries. The above definition also includes the use of armaments, which is rarely the case in other species. To insist upon all of these criteria may be overly pedantic but, nevertheless, the *Concise Oxford* definition suggests that in common parlance, war alludes to human behaviour.

Ideally, a useful definition for anthropological purposes should preclude motivations such as revenge killings or disputes over resources, which may not be inferred from archaeological evidence, for instance. Likewise, beyond the historical context, it is not usually possible to infer whether conflicts are pursued for the sheer pleasure of battle, a motivation that might otherwise serve to distinguish human warfare from intergroup aggression. With that caveat, a definition that avoids any mention of motivation has been adopted widely in cross-cultural studies (Hames, 2019, p. 159):

> Warfare is defined as socially organized armed combat between members of different territorial units (communities or aggregates of communities). In the ethnographic record, such combat usually involves groups on both sides, but a warfare event could involve the ambush of a single person of an enemy or group. Thus, the phrase "socially organized" means that there is a group of combatants on at least one of the sides (Ember & Ember, 1992, p. 172).

Three Explanatory Models

Existing theoretical approaches to understanding war can be grouped into three domains: evolutionary, social, and psychological. Considerable overlap exists between the domains — for instance between evolutionary and psychological drive theories. As an example of the overlap between disciplinary domains, clothing has evolutionary origins as an adaptative response to ice age environments (Gilligan, 2010), while modesty in clothing — and its posited role in sublimation — is mediated by social and psychological processes.

Evolutionary Models

From an evolutionary perspective, war exists because it is adaptive at the species level. War confers potential advantages on groups and, in theory at least, war ultimately should increase the survival prospects of *H. sapiens*. As summarized by Gat (2021), evolution has bequeathed to humans a 'clearly recognizable deep core of innate human propensities' which include a 'predisposition' to engage in intergroup aggression (Gat, 2021, p. 2796). This biologically based predisposition for intergroup aggression is translated into psychological motivations for people to engage in warfare, listed by Gat (ibid., pp. 2796–2802) in decreasing order of salience: subsistence resources, reproduction and sex, status, revenge, power, and ideas such as religious beliefs and ideologies. Lower-ranking motives for intergroup aggression (e.g., religious beliefs and ideologies) have become more relevant in recent prehistory following the development of agriculture and complex societies.

Social Models

The frequency and scale of human warfare correlate with social complexity. Why war should increase with social complexity is not clear, and multiple factors — direct and indirect — are likely involved. The clothing-based proposal favours indirect mechanisms, based on social requirements for modesty and sexual restriction. Among theoretical approaches that champion more direct social causes of war, two influential models are social learning of aggression and social ideals of masculinity that promote warfare.

Social Learning

Advocates of the social learning model of war maintain that human aggression is largely a learned behaviour. Social contexts vary in exposing young people to violence and presenting war as acceptable, inevitable, or desirable, even glorious. Among the leading advocates of social learning of aggression were psychologist Bandura (1973) and anthropologist Ashley Montagu (1978). Research findings and experimental studies confirm a contributing

role for social learning (e.g., Greitemeyer & Mügge, 2014, pp. 581–582), and the social learning model is incorporated into most general models of human aggression (e.g., Anderson & Bushman, 2002, p. 31).

Masculinity

A variation on the social learning theme argues that the main culprit is masculinity. In this view, an inclination to be aggressive and enjoy violence is part of what a boy must learn if he wants to become a man (Ferguson, 2021, pp. S114-S116). Ample evidence supports this position, which sees the male predilection for warfare as reflecting a gender bias in the learning of aggression. Still, it begs the question of why masculinity is prone to acquire this property. The sex difference in enjoying war is attributed primarily to a gender difference that is socially constructed, not biologically determined. Nonetheless, a biological difference needs to be acknowledged: whether comparing intergroup aggression in human societies or in other animal species, males are generally more aggressive than females (Smith et al., 2022). This sex difference might be due mainly to hormonal differences — although the role of testosterone, for instance, is complex and prone to reductionist thinking (Sapolsky, 2018, pp. 3–4). Undermining the biological position, proponents of social learning and masculinity point out that social complexity promotes aggressive masculinity (Fuentes, 2021).

Psychological Models

Psychologists have explored a range of factors — genetic, environmental, dispositional, neurological, social, and situational — which contribute to aggressive tendencies at individual and group levels (Shaver & Mikulincer, 2011). Biological and social factors are invoked to account for the observed patterning in human aggression, notably, a greater male propensity for violence and varying frequencies of same-sex and inter-sex aggression (Wölfer & Hewstone, 2015, pp. 1292–1293). Existing psychological models comprise instinctual drive theories and three research-based contributions that are relevant to any analysis of war: the frustration-aggression model, obedience to authority, and the role of personality variables.

Aggressive Instinct

Leaving aside Freud's 'death drive' (critiqued below), the concept of an underlying instinct or drive for war became popular in the 1960s, driven mainly by findings from animal studies and, in particular, the ethological work of Konrad Lorenz. To explain the excessive destructiveness of human warfare, Lorenz hypothesized that an intensified propensity for violence develops because modern human societies deprive people of natural outlets for their innate aggressive drive (Lorenz, 1966, p.209). Lorenz's position is consistent with a neolithic origin of war, where the advent of agriculture and domestication of animals deprived men of the outlet for killing that hunting had provided and so, instead, men began to hunt each other. According to Lorenz, humans engage in warfare — and derive pleasure from violence — because war allows the release of pent-up frustrations resulting from the unnatural suppression of an instinct that is perfectly natural.

Frustration-Aggression Hypothesis

As proposed by Miller et al. (1941) and reformulated by Berkowitz (1989), the frustration-aggression hypothesis is supported by decades of empirical research using humans and other species as subjects. Frustration refers to obstruction of behaviour directed towards reaching a desired goal, and obstruction can be defined behaviourally or cognitively. In humans, cognitive elements are especially important, leading to complex association networks whereby high-level constructs and knowledge structures acquire the potential to activate frustration and aggression (Anderson & Bushman, 2002, pp. 29–34). A host of mediating factors have been identified which affect frustration and the likelihood of aggression, and the model can be applied at societal as well as group and individual levels (Breuer & Elson, 2017, p. 7).

Obedience to Authority

The pivotal study demonstrating the power of obedience in human aggression was conducted by psychologist Stanley Milgram at Yale University in the early 1960s. The ethics and methodology of Milgram's experiments have been criticised (e.g., Perry, 2013, pp. 73–77, 133–140), and generalising is problematical. Nonetheless, the findings appear to be robust; it is their relevance to events like the Holocaust that is more debatable (Fenigstein, 2015, p. 595). Milgram's experiments coincided with the trial of Nazi officer Adolf Eichmann, showing how obedience to authority might lead ordinary people to perform or condone acts of extreme cruelty (Arendt, 1963, p. 67). Milgram found that in the presence of appropriate situational cues, many volunteers were prepared to administer electric shocks of increasing intensity to a sham victim despite the latter's apparent pain and distress. A less publicized finding, though, was the number of volunteers who defied the experimenters' authority and refused to deliver the strongest shocks. Refusal rates increased with physical proximity to the victim, especially with direct physical contact: 70% refused to cooperate in the 'Touch-Proximity' condition (Milgrim, 2009, p. 36).

Personality Factors

Countless examples exist of people who commit terrible deeds in times of war (such as engaging in torture) but who otherwise lead exemplary moral lives. This conundrum persists even after taking into account the role of obedience to authority. It persists also after excluding any contribution from psychopathology, such as the sexual sadism of serial killers (very rare) and the small proportion of the population who can be diagnosed as psychopathic – that is, individuals who lack a sense of guilt about breaking the law or causing harm to others. In the USA, psychopaths comprise around 1% of the general population but represent around 25% of the prison population and psychopaths may be responsible for up to 50% of serious violent crimes (Tangney & Stuewig, 2004, p. 340).

While personality can certainly play a role in precipitating particular wars — Hitler is a classic example — the evidence does not show that most wars are started by leaders with pathological personality traits such as psychopathy or sociopathy — let alone sadism or necrophilia. Psychoanalyst Erich Fromm deployed his clinical skills to biographically diagnose Stalin as a case of sadism, but with Hitler – in whom he detected signs

of latent homosexuality — Fromm concluded that 'sadism is secondary in comparison with his necrophilia' (Fromm, 1973, pp. 274, 280–368, 375). Narcissistic personality traits can also increase the likelihood of leaders instigating war (Anderson & Bushman, 2002, p. 35).

The psychoanalytic perspective on warfare emphasizes the contribution of motivations arising within the individual and, in particular, how the most potent psychological elements are unconscious. For this reason, attempts to explain war in terms of identifiable external factors (such as economic, political, and cultural issues) will never succeed entirely. Even the impact of group psychology (Bion, 1990) must incorporate processes which are, in terms of objective criteria, irrational. Unconscious events and conflicts are played out in the social enactment of war, and perceptions of external threats and potential gains from engaging in war are inevitably distorted by unconscious processes (Fornari, 1974).

Overall, the findings in psychology are 'meagre and mixed' with respect to the crucial issue of explaining the 'appetite' for war (Glowacki & McDermott, 2022, pp. 2–6). The causal role of individual personality traits would appear to be somewhat limited. Moreover, personality factors do not account for the trend of recurring warfare since the end of the last ice age in complex societies. Psychological explanations must also explain the widespread enjoyment of war and accommodate anthropological evidence indicating that warfare was less evident, if not absent, in hunter-gatherer societies where clothing was not used routinely.

The Scientific Evidence Base

A multidisciplinary review of evidence is mandatory for assessing theoretical approaches to explaining war. The most relevant disciplines are animal studies (ethology), human prehistory (archaeology), and cross-cultural research (ethnography). The historical record is almost superfluous and is not reviewed here, given the ubiquity — and, often, glorification — of warfare throughout the 5000 years of the historical era (e.g., Anonymous, c. 1800 BCE, pp. 145–146; Homer, c. 800 BCE, pp. 160–162). On the other hand, the evidence base will be extended to include anecdotal accounts illustrating two key psychological aspects: rapid habituation to human suffering, and a delight in causing death and destruction.

Ethology

Intergroup aggression that bears a superficial similarity to human warfare is documented across a wide range of animal species and taxa, ranging from close relatives of hominins (Goodall, 1986, pp. 503–533) to 'inter-colony warfare' among social insects such as ants and bees (De Dreu & Triki, 2022, p. 2). Nonetheless, even social insects generally avoid open conflict and, instead, adopt strategies to promote intergroup cooperation (Rodrigues et al., 2022, pp. 2–3). Recent studies have focused on aggression among the closest extant relatives of *H. sapiens*, chimpanzees (*Pan troglodytes*) and bonobos (*Pan paniscus*). While differing ecological conditions may contribute to observed differences (Boesch, 2002, p. 5), the two species demonstrate a significant contrast in aggressive behaviours.

Chimpanzee Aggression

Among chimpanzees, interpersonal violence occurs mainly among males in relation to dominance hierarchies — especially competition over the alpha position, which affects male access to females for sex (Nishida, 2012, pp. 228–235). Intergroup violence among chimpanzees relates mainly to territorial issues. When in close proximity to neighbouring groups, bands of male chimpanzees mount border patrols that can lead to physical attacks and occasional deaths — but only when the targets are outnumbered. These patrols serve clear purposes (protection of food resources and females within group territories), and successful raids may confer tangible benefits to the victors in terms of territory size, food supply, and mating opportunities (Massaro et al., 2022, p. 2). Jane Goodall documents a number of cases of murder and a couple of violent raids between neighbouring chimpanzee communities. She suggests their behaviour is sometimes 'cruel' and possibly 'a precursor of sadism' — and even that chimpanzees could be 'on the threshold of warfare' (Goodall, 1986, pp. 503–533). The fatal injuries suffered by one victim of a documented group attack certainly indicate extreme violence (Muller, 2002, p. 118). Still, aggression in chimpanzees is often followed by reconciliation and sometimes by 'consolation' from uninvolved bystanders (de Waal, 2006, pp. 33–36).

Bonobo Peace and Love

Bonobos are less aggressive than chimpanzees, even when defending territories (Boehm, 1999, p. 136), and bonobos are more tolerant of incursions by neighbours and strangers (Hohmann & Fruth, 2002, p. 146). Violence within groups occurs mainly between males and, rather than resulting in physical harm, aggression often leads to homosexual activities including mounting and anal copulation (Kano, 1992, pp. 175–179). In contrast to chimpanzees, territorial encounters between bonobo groups typically culminate in sexual activities (de Waal, 2013, p. 64), with females often initiating the sexual activities that promote peaceful intergroup relations (Furuichi, 2011, pp. 138–140). Unlike chimpanzees, no organized intergroup physical aggression has been observed among bonobos (Wrangham, 2018, p. 248). A marked discrepancy in aggression between humanity's two closest surviving relatives has been cited as critical evidence against an inherited, evolutionary basis for human warfare:

> The chimpanzee/bonobo record contradicts the idea that war expresses inborn male predispositions handed down from our last common ancestor (Ferguson, 2021, p. S113).

Archaeology

Evidence of what may be a massacre in Kenya 10,000 years ago suggests that warfare-style violence did occur among prehistoric hunter-gatherers. However, the presence of pottery at the site might indicate that the perpetrators were not mobile but sedentary, or semi-sedentary, hunter-gatherers (Mirazón Lahr et al., 2016, pp. 395–397). In other words, this possible evidence for early warfare occurs among 'relatively settled and dense, complex hunter-gatherers' (Ferguson, 2021, p. S114). Despite popular perceptions to the contrary

(e.g., Wilson, 2014, p. 25), the negative evidence from archaeology for warfare prior to the end of the last ice age 11,700 years ago is quite compelling (Ferguson, 2013, pp. 228–229; Haas & Piscitelli, 2013, p. 184). Archaeological evidence has been summarized as follows:

> The worldwide archaeological evidence shows that war was simply absent over the vast majority of human existence… the archaeological record is clear and unambiguous: war developed… within the last 10,000 years (Fry, 2013, p. 15).

To some extent, however, the apparent invisibility of intergroup aggression in the Pleistocene may be an artefact of taphonomic and other biases in the archaeological record. Among small-scale, mobile communities, intergroup violence may leave little trace in comparison to battles between sedentary groups with higher population densities, durable settlements and, sometimes, fortifications (Hames, 2019, pp. 166–167).

Social Complexity

The postglacial (Holocene) context of warfare coincides with the emergence of social complexity and agriculture. Archaeologist Ian Hodder describes how symbolic motifs uncovered in the early agricultural villages of eastern Turkey around 10,000 years ago seem to indicate an increasing preoccupation with themes such as 'death, violence, and sexuality' (Hodder, 2007, p. 114). This evidence has been interpreted as indicating that the emergence of complexity favoured warfare for socioeconomic reasons (e.g., Fuentes, 2021, p. S20).

In Australia, where social relations were less complex (and routine nakedness the norm), rock art depictions of interpersonal violence in Arnhem Land could date back to 10,000 years ago. The earlier paintings show mainly one-on-one conflicts and only in the more recent paintings are there scenes purportedly suggestive of 'combat' and 'battle' between groups (Taçon & Chippindale, 1994, p. 224). In the Murray Valley region, where archaeological evidence suggests higher population densities, increased territoriality, and a less mobile lifestyle since the mid-Holocene, skeletal evidence from cemeteries does not indicate any increase in physical violence or warfare. On the contrary, the skeletal evidence 'suggests, as is often the case today, that threat and intimidation played a larger role than physical assault' (Pardoe, 2014, p. 130).

Ethnography

The ethnographic evidence indicates warfare is less prevalent among mobile, egalitarian hunter-gatherers (Ember & Ember, 1997; Ferguson, 2021). These societies are characterized by fewer restrictions on sexual behaviour and less sexual modesty in clothing (Gilligan, 2023a, b; Murdock, 1964; Stephens, 1972). The San people in southern Africa (who routinely went naked) are an example (Shostak, 1981): murders do occur — mainly as 'crimes of passion' — but it has been claimed that the San 'do not engage in warfare' (Lee, 1979, pp. 397–398). Among the San, aggressive behaviour is actively discouraged and parents carefully ensure that physical aggression is not reinforced, directly or indirectly. Childhood tantrums are casually ignored, as long as no harm results; if violence escalates, adults move in swiftly to firmly but placidly separate quarrelling youngsters (Draper, 1978, pp. 36–39). Whether the San were always as peaceful is unclear, however, and there are reports of more warlike behaviour in the past, although this may relate to foreign intrusions into their traditional territories (Guenther, 2014).

Indigenous Australians

Among hunter-gatherers generally, socially approved violence and warfare are typical of more complex societies (Kelly, 2013, pp. 204–205). In hunter-gatherer societies lacking social hierarchies and routine clothing, there is not a total absence of aggression but rather a reduced intensity of intergroup aggression (Gat, 2015; Wrangham & Glowacki, 2012). A correlation between routine nakedness and lack of war is illustrated in Aboriginal Australia, where clothing was largely limited to the cooler regions and did not stipulate genital covering (Gilligan, 2007, 2019, pp. 11–12, 27–31). Australia offers many cases of 'peaceful hunter-gatherers' but, nonetheless, violent exchanges between groups are documented (Keeley, 1996, pp. 30, 115) — mainly over access to territory and resources (Allen, 2014; Basedow, 1925; Darmangeat, 2020). While Aborigines certainly 'quarrelled and argued and fought' among themselves, the value of avoiding conflict was taught from childhood (Berndt, 1978, p. 158). Most violence in Aboriginal society related to revenge killings and disputes over women, although there were some documented 'pitched battles' which were 'intended to put an end to chains of revenge killings'; the incidence of aggression during the early colonial era was also affected by 'the dispossession and disruption that followed European arrival' (Flood, 2006, pp. 115–117). Routine nakedness and an absence of sexual modesty promoted non-violent resolution of disputes between groups, illustrated by a traditional ceremony in central Australia where, instead of fighting with phallic symbols, men from opposing groups would engage in a 'touch-penis' ritual (Berndt & Berndt, 1945, p. 263).

Anecdotal Accounts

As evidence about the nature of warfare, first-hand descriptions are notable for two findings. First is the appalling ease with which participants become emotionally detached from, if not immune to, the pain and suffering inflicted (e.g., Remarque, 1929, pp. 142–143, 194–195). Second is the ease with which an otherwise latent sadistic streak can surface among participants. Medieval texts, for example, describe how hand-to-hand combat was 'highly pleasurable' and combatants seemed to derive 'real joy, and even aesthetic delight, in the battle experience' (Classen, 2012, pp. 25–26). In her analysis of first-hand descriptions, Joanna Bourke quotes numerous examples, such as a Marine in the Vietnam War:

> I enjoyed the shooting and the killing. I was literally turned on when I saw a gook get shot (Bourke, 1999, p. 32).

Most soldiers rapidly become desensitized to the violence but, moreover, they often come to enjoy the actual killing and even become addicted to the excitement, as reported by a journalist who accompanied Marines during the 2003 invasion of Iraq (Wright, 2004, pp. 305–306, 349). The unleashing of a sadistic propensity among soldiers becomes apparent in documented accounts of massacres and 'extreme violence' during many wars. Among the most notorious was the Japanese assault on Nanking in 1937, when an estimated 250,000 people (mainly civilians) were killed during a 6-week orgy of violence. Although the training and beliefs of Japanese soldiers at the time must be taken into account, social learning factors cannot fully explain what happened in Nanking (Dutton, 2007, p. 67). There remains a reluctance to recognize the 'sadism' which often becomes discernible at the individual level, if only transiently (Miller, 2004, p. 212; Zimbardo, 2007, p. 189;

Fenigstein, 2015, p. 592). In this regard, few historical examples can match the scale of torture and killing in Russia after the 1917 Bolshevik revolution. Even allowing for intense internecine hatreds that can be unleashed in civil wars, the overt sadism was particularly striking (Beevor, 2022, p. 223).

Enjoying War

The behaviour of humans in warfare can appear superficially indistinguishable from physical aggression in other animal species. Indeed, a certain portion of human aggression is directly comparable in that it results from the same conflicts that arise in non-human species — typically, disputes over access to resources or sexual partners. However, this natural aggression may have limited relevance to warfare. In addition to natural aggression, there appears to be another contributing factor, a strange human desire to seek violence and derive pleasure from violence — which is indeed a strange desire as it has no counterpart in other species. This element — the enjoyment — may be associated with an effect of clothing, namely sexual sublimation. The psychological process of sublimation was first recognized by Freud.

Freud and the Death Drive

Except for the overt sexuality of sadomasochistic and possible Oedipal elements, Freud did not make a connection between sexuality and human aggression, even in warfare. The omission is mysterious given his emphasis — or, some would say, over-emphasis (Fromm, 1980, p. 26) — on the sex drive, and his insight into how sublimation of the sex drive contributes to 'civilization' (Freud, 1930). It is not that Freud failed to appreciate the problem of human aggression. On the contrary, the carnage of the First World War disturbed Freud deeply, and he spent much of his later life trying to make sense of the human desire for destruction (Schimmel, 2014, pp. 130–132).

Freud recognized that warfare involves a positive desire (or drive) to engage in aggression for its own sake. In *Beyond the Pleasure Principle*, written in 1919 and published in 1920 when he was 64 years of age, Freud postulated the existence of a life-opposing drive. According to Freud, this 'daemonic' death drive characterizes 'organic life in general' and it implies that 'instinctual life as a whole serves to bring about death' (Freud, 1920, pp. 35–39). In making this major revision of his metapsychology, Freud replaced a logical conflict between the pleasure principle of the id and the reality principle of the ego by a dualistic struggle between life and death, with the reality and pleasure principles amalgamated into a single 'life' instinct (ibid., pp. 49–53). The death drive has been listed among Freud's greatest mistakes (e.g., Fromm, 1980, pp. 113–116), and the notion of a death drive contradicts much of Freud's own thinking up to that point. Worse, as a purported explanation for war (Einstein & Freud, 1933, pp. 11–13) involving an 'outward deflection of the death drive' (Fornari, 1974, p. 61), the death drive is a short-cut or 'pseudo-explanation' (Žižek, 2014, p. 122) rather than a 'distinctively psychoanalytic account of human aggression and destructiveness' (Lear, 2015, p. 163).

Freud had no need to go beyond the pleasure principle to explain why war is pleasurable: he already had a 'distinctively psychoanalytic' mechanism at his disposal — sublimation. Freud simply needed to see that sublimation can happen with aggression as easily as with any other substitute outlet for the sex drive. Yet Freud saw sublimation in moralistic

terms as a socially desirable process, leading to beneficial pursuits like culture and science (Freud, 1910a, pp. 74–78). In reality, sublimation can make no moral distinction and there is no logical reason why sexuality cannot be sublimated into destructive as well as constructive activities, particularly in social contexts where war is culturally esteemed.

The psychoanalytic term 'sublimation' is borrowed from chemistry and earlier alchemy. Chemical sublimation refers to the transformation of a substance directly from a solid into as gaseous state, without transiting through an intermediate liquid phase. In psychoanalysis, sublimation alludes to this almost mystical quality of transformation to a higher state, from a physical (bodily) state of sexual stimulation into a purely mental activity that provides enjoyment and satisfaction — without producing any liquid in the process. From the outset, Freud maintained that sublimation does not involve repression of the sexual drive so much as an unconscious redirection, quite unlike the classic defence mechanisms that are less capable of generating satisfaction and which often lead to anxiety, or 'neurotic' symptoms in Freud's terminology. Lacan mentions this 'enigma' of sublimation, that sublimation involves simultaneous inhibition and satisfaction, without requiring repression (Lacan, 1981, p. 165). Freud insisted that sublimation is a productive process, both for personality development and for society. Sublimation functions to 'channel and organize' rather than to repress sexuality, and sublimation therefore assists in normal ego development of the individual, a process favoured in complex social settings (Loewald, 1988, pp. 5, 33–43). Sublimation, in Freud's view, is a 'valuable' process that leads to 'higher' motivations which, ideally, are 'perhaps' non-sexual (Freud, 1910b, pp. 53–54).

Advancing age might have been a decisive factor in Freud changing his mind about the dominant role of sex in the human psyche and dwelling more on death, intensified by a diagnosis with cancer (Fromm, 1980, pp. 110–111). A declining interest in sex — and a concomitant preoccupation with death — would not be unique to the elderly Freud. A tendency to forget the intensity of adolescent sexual interest and the power of sexual motivation in young people not only accompanies the advancing years, it can lead to underestimating the formative influences of sexuality in moulding individual personality traits, lifelong psychological preferences, and enduring patterns of behaviour.

Fromm and Malignant Aggression

A prominent critic of the death drive was psychoanalyst Erich Fromm, who distinguished between what he termed benign and malignant aggression. Benign aggression is shared by all animals, including humans. Benign aggression encompasses all types of aggressive behaviours that humans share with other animal species — the list is long and includes accidental, playful, self-assertive, defensive, territorial, and predatory (mainly food-related) aggressive behaviours. Fromm argued that malignant aggression has unusual elements that are qualitatively distinct, and these elements are generally ignored by those who equate human and animal aggression. The unusual elements include sexual and 'ecstatic' qualities which, in extreme cases, can take the form of sadomasochism and necrophilia, a 'lust' for blood and violence (Fromm, 1973, pp. 186–187).

In distinguishing malignant from benign aggression, Fromm highlighted a distinctive human desire for violence and acknowledged the need for an explanation that references the unique circumstances of humanity. Ultimately, it is the sheer enjoyment of war which needs to be addressed:

> War is a lot of things and it's useless to pretend that exciting isn't one of them. It's insanely exciting… Soldiers discuss that fact with each other and eventually with

> their chaplains and their shrinks and maybe even their spouses, but the public will never hear about it. It's just not something that many people want acknowledged (Junger, 2010, p. 144).

US military psychologist Lt. Col. Dave Grossman discusses how the sexualization is difficult to acknowledge and how the 'link between sex and war' is accompanied by 'the process of denial' about how sexual aspects contribute simultaneously to both the repulsion and the attraction of killing:

> For a bayonet-, spear-, or sword-armed soldier his weapon becomes a natural extension of his body – an appendage. And the piercing of the enemy's body with this appendage is an act with some of the sexual connotations we will see in hand-to-hand combat range. To reach out and penetrate the enemy's flesh and thrust a portion of ourselves into his vitals is deeply akin to the sexual act, yet deadly, and is therefore strongly repulsive to us… Many men who have carried and fired a gun – especially a full automatic weapon – must confess in their hearts that the power and pleasure of explosively spewing a stream of bullets is akin to the emotions felt when explosively spewing a stream of semen… Thrusting the sexual appendage (the penis) deep into the body of the victim can be perversely linked to thrusting the killing appendage (a bayonet or knife) deep into the body of the victim (Grossman, 2009, pp. 121–137).

A Return to Sex

Recommending a return to the younger Freud's focus on sex has nothing in common with Lacan's 'return to Freud' (Lacan, 2006, p. 402). Lacan's work ultimately proved little more than a linguistic detour that may have been an elaborate hoax — linguist Noam Chomsky described Lacan as a 'charlatan' who played to his audience (Chomsky, 1989, p. 32). In psychoanalysis, the retreat from sex began with Jung and Adler, and with Freud himself in his later years. Prominent post-Freudian analysts such as Karen Horney (Horney, 1960) downplayed the role of sex, a trend notable also in Bowlby's attachment theory and Fairbairn's object relations model which reflect 'a general neglect of the role of pleasure' (Eagle, 2011, p. 261). While rejecting Freud's emphasis on 'impersonal' biological drives, these post-Freudian formulations suffer from a scientific flaw in that they lack a sound motivation for attachment or object relations (Boag, 2017, pp. 122, 130). On the other hand, not only does sex provide a solid biological foundation for motivation that is consistent with the importance of sex in evolution (Gat, 2021, pp. 2797–2798), its psychological transformation through sublimation can comfortably conceal the sexual basis of human behaviour, especially in complex — so-called 'civilised' — societies. As sociologist Nancy Chodorow observes, 'the place of sexuality in psychoanalysis has been inappropriately diminished' (Chodorow, 2012, p. 37).

Sexual Sublimation

Aggression becomes more enjoyable when it becomes sexualised, either overtly (as in sadomasochism and necrophilia) or covertly, through sublimation. This quality of sexualization comprises the unusual element in warfare and renders it qualitatively different from what might be termed natural forms of aggression. Sublimation of sexual desire is

the main process involved, with violence becoming enjoyable as a substitute gratification. Certain aspects of physical violence make it attractive as a sublimated substitute for sexual gratification. One aspect is that violence is a form of physical contact – notwithstanding that in contemporary warfare, the contact is usually more indirect than was the case during previous centuries. In social contexts where humans are sexually restricted and deprived of physical contacts between one another due to the presence of clothing (Gilligan, 2023b), any form of tactile contact is prone to becoming sexualised.

Overt forms of sexualised aggression are conventionally partitioned as distinct forms of sexual behaviour (sadomasochism) or perversions (like necrophilia), with the sexuality taken to an extreme by the Marquis de Sade (Sade, 1785). Sex researchers report a high frequency of sadomasochistic fantasies and behaviours in the general population (Joyal et al., 2015; Krueger, 2010a, b), with ongoing debate as to whether these should be regarded as pathological by the medical and legal professions (de Beauvoir, 1952; Wright, 2010; American Psychiatric Association, 2022, pp. 788–792). Since the sexual element is detectable, sadomasochism represents an absence or failure of sublimation. For the mainstream, enjoyment of war reflects sublimated sexual impulses, safely dissociated from sexual arousal. In some situations, the sexual element can become overt, in which case the sexuality is no longer fully sublimated. For example, sadomasochistic tendencies were openly promoted in the training of boy soldiers by the Khmer Rouge. The young leaders of this army were 'sex starved,' and physical pain in the form of 'bruise therapy' was a socially-organized substitute that acquired the capacity to provide gratification — although the skin pinching 'had to be very painful to be effective' (May, 1986, p. 173). In an extensive review of the 'extreme violence' that marks human behaviour during wars (and in similar instances of group violence, such as massacres), psychologist Donald Dutton identifies this element of sadism that is rarely discussed in the literature on war (Dutton, 2007, pp. 118–135).

The cultural benefits of sublimation represent a barrier to recognizing how sexuality can be sublimated into aggression — except in cultural contexts where warfare and its enjoyment are openly promoted as socially valuable and productive. Sublimation itself has attracted relatively little interest among psychologists and psychiatrists, due mainly to the fact that unlike defence mechanisms, sublimation has limited clinical relevance in the psychotherapeutic treatment of patients. Even from the outset, however, the concept of sublimation was 'underdeveloped' by Freud and the 'lack of a coherent theory of sublimation remains one of the lacunae in psycho-analytic thought' (Laplanche & Pontalis, 1973, pp. 432–433). Whereas defence mechanisms are well-studied in clinical psychology, sublimation has been neglected as a topic for scientific research. Among the exceptions, experimental evidence for sublimation was reported in one study, although the concept of sublimation was confounded with defence mechanisms: displacement of aggression, for instance, was misconstrued as sublimation (Kim et al., 2013, pp. 652–655).

Another misconception that can arise with the role of clothing in sexual sublimation is that an absence of clothes would necessarily mean an absence of sublimation. In some cultures, for instance, soldiers went into battle in the nude, or almost naked — examples include the Arunta in Australia, where no clothes were worn at any time in their traditional lifestyle (Basedow, 1925), and the Yanomamö in South America, where the men fight with minimal garments, often only a penis string or a scant loin covering (Chagnon, 1983). In a similar vein, the frequent incidence of rape and the capturing of sexual slaves in warfare might be cited as evidence against sexual sublimation. However, sexual behaviour is not precluded by sublimation and an overly literal interpretation

discounts the formative psychological role of clothing and sexual shame, which persists even when clothes are removed — whilst visiting a nudist resort, for instance (Ableman, 1982, pp. 98–99).

Together with many Freudian notions, in Western societies that ostensibly have become less restrictive of sexual behaviour, sublimation is no longer a 'fashionable' concept (Conrotto, 2014, p. xiii). Yet a superficial sexual openness is not necessarily translated into behaviour: viewed through a wider ethnographic lens, contemporary Western societies are still situated at the restrictive end of the sexual restriction spectrum (Gilligan, 2023b). Tighter restrictions on sexual behaviour accompanied the emergence of social complexity and the transition to agriculture (Gray & Garcia, 2013; Ryan & Jethá, 2010; Taylor, 1996), and ethnographic studies have quantified this trend in the frequency of sexual coitus, for example (Murdock, 1964; Stephens, 1972). One study compared foragers (the Aka pygmies, Central African Republic), farmers (Ngandu, Central African Republic), and a US sample, reporting a dramatic difference:

> A comparison of frequency of sex-by-age data for U.S., Aka, and Ngandu married couples shows that U.S. couples aged thirty to thirty-nine have sex 86 times per year, Ngandu 228 times per year, and Aka 439 times per year. The question then becomes why such a marked difference in the frequency of sexual intercourse exists (Hewlett & Hewlett, 2008, p. 47).

Following the rise of consumerism, gratification of pleasure may appear less delayed, although the prompt gratification of materialistic desires through consumer satisfaction — as quantified in consumer satisfaction surveys — might serve instead to confirm the success of sublimation (cf. Fromm, 1980, p. 26). This raises the question of whether 'sublimation has disappeared or whether it is simply the use of the term… which has disappeared' (Valdrè, 2014, pp. 112–115, 125).

Weapons as Phallic Symbols

From a psychoanalytic perspective, the role of sublimation in human aggression may be discerned in the sexual symbolism of weaponry, and also in the behaviour and language of people involved. For example, the 'vulgar' language used by combatants in war frequently contains obvious 'sexual allusions' (Donnan & Magowan, 2010, pp. 119–122). The symbolism is predominantly phallic, reflecting a male dominance and hinting perhaps — in the case of males — at thinly veiled homoeroticism (Fornari, 1974, pp. 88–89). Regardless of individual sexual preferences, all men likely suffer from penis envy to some extent, if only in the form of phallic symbols. From swords to cannons, from guns to guided missiles, phallic symbolism is remarkably prominent — the apparatus of warfare is analogous to the male sexual apparatus. The phallic symbolism of weaponry has become a common cliché, easy to ridicule (like many Freudian concepts), but its self-evident validity is not so easy to deny. Phallic symbolism is readily acknowledged in critiques of military and popular culture — from the relatively modest pistol of James Bond to the 'ludicrously oversized weapons' of Rambo, and the government-level 'missile envy' of Cold War military strategists (Myrttinen, 2003, pp. 40–42). Just as sublimated libidinal interests that last a lifetime can deliver more enduring satisfactions than brief sexual activities, a gun is almost more phallic than a penis: not only is a gun often larger, it is always hard.

War as Entertainment

Leaving aside sexual symbolism, another awkward fact about war is its enormous entertainment value in contemporary Western society, where sales of graphic video games now outstrip revenues from war movies. The market for war entertainment is massive, and the vast majority of consumers (predominantly male) are totally unaware of any sexual connotations; nor are they personally involved in perpetrating violence (Bayer, 2004, pp. 159–166; Rhoads, 2004, pp. 33–34; Olson et al., 2007, pp. 79–80; Grossman, 2009, pp. 312–320). Many of the popular games that embody a 'fetishization of authenticity' are produced with the assistance of the armed forces (Bourke, 2014, pp. 199–204). Graphic realism makes war movies and computer games useful in military training, and even anti-war movies can be employed for this purpose; instead of feeling repelled, soldiers become 'excited' by the gore (Swofford, 2003, pp. 6–7). Military psychologists use a range of conditioning techniques to desensitize recruits to violence and, less overtly, to cultivate an enjoyment of battle. Modern-day training utilizes methods such as paint-ball 'stress inoculation' to overcome the 'healthy' individual's ambivalence about violence and enhance the psychological capacity of soldiers to tolerate and inflict physical violence (Hughbank & Grossman, 2013, pp. 505–510).

Discussion

Evolution provides a sound framework for understanding intergroup aggression among social species, including *H. sapiens*. Ethological evidence is consistent with a predisposition for aggression conferring survival benefits, primarily in terms of access to resources and opportunities for reproduction. Nonetheless, there are marked differences between species, notably between the two closest surviving relatives of *H. sapiens*, chimpanzees and bonobos, illustrating the limits of relying too heavily on an evolutionary model to explain warfare.

Social learning models for warfare likewise have limits, even in the most social of primates, *H. sapiens*. Notwithstanding the role of gender-based masculinity in the learning of socially condoned aggression, the contribution of masculinity to warfare begs the question of why aggression occupies a prominent proportion of the masculine ethos. Psychological research on war has proven a disappointment in some respects too, with the notable exception of the study on obedience to authority. Generally speaking, psychological research is relevant more to interpersonal than intergroup aggression. The main contribution from psychology is a negative finding. Aside from individual leaders, among the vast majority of participants and enthusiasts, personality traits and disorders (psychopathic and sociopathic traits, and overt sadomasochism) play a minimal role in warfare.

Anecdotal reports, on the other hand, offer a rich — though generally underrated — source of evidence about the human appetite for war. Aside from the ease with which participants become desensitized to human suffering and destruction, first-hand accounts of battle raise a more disturbing aspect: the appalling ease with which a normal revulsion for violence is replaced by an almost sadomasochistic delight that surfaces among individuals who possess no such discernible tendencies in peacetime.

Is Evolution Enough?

Given the essential validity of the evolutionary model in explaining a predisposition for intergroup aggression, the question is whether evolution alone is sufficient to account for human warfare. Notwithstanding the bonobo evidence, ethology favours the current evolutionary model of a predisposition for intergroup aggression which can be triggered in certain situations. On the other hand, evidence from archaeology and ethnography is equivocal and contested. Advocates for 'evolution alone' assert that archaeology demonstrates a long prehistory of warfare stretching back into the Pleistocene. Also, advocates for an 'evolution alone' model argue that ethnography demonstrates the presence of warfare among all hunter-gatherers, even in communities with relatively egalitarian social structures. If both these claims are indeed true, it would mean that data from three key disciplines — ethology, archaeology, and ethnography — collectively constitute a persuasive case for warfare as a product of evolution.

Evidence in archaeology and ethnography for widespread warfare is open to differing interpretations, however, raising doubts about whether evolution is sufficient to explain war. In archaeology, the picture suggests that war emerged very late in human evolution, mainly in settings of social complexity. In ethnography, the picture likewise suggests that war is less discernible among hunter-gatherer communities without social hierarchies — and for that matter, without the routine presence of clothes as genital cover.

Salvaging Evolution

If warfare is limited to the recent past and confined largely to complex societies, the current evolutionary model draws attention to possible reasons why novel social conditions in the early Holocene might favour a lowered threshold — and, perhaps, a greater enthusiasm — for warfare. A number of post-glacial developments could be relevant: the advent of agriculture, the emergence of hierarchical social structures with elites, and the shift to a more sedentary, and, eventually, city-based lifestyle. In addition to expanding agricultural territories or raiding stored food supplies (Hayden, 2020), hierarchical societies (with or without agriculture) altered the cost–benefit ratio and the incentives for intergroup aggression, with a concomitant shift to indirect motives such as status, prestige, power, group identity, and ideology (Gat, 2021, pp. 2799–2801).

Is Clothing Necessary?

In explaining war, the short answer to the above question is no, probably not. Without clothes, intergroup aggression would certainly occur, due to evolutionary factors which have bequeathed to *H. sapiens* a predisposition for aggression. Similarly, intergroup aggression would occur without social complexity. However, warfare has features not witnessed in other species, nor in hunter-gatherer communities lacking clothes as genital cover. Among the unusual elements of warfare is its enjoyment. In theory, the pleasures of war could be accommodated within the evolutionary model, although the argument would need to be accommodative. Alternatively, the pleasures of war could be dismissed as superfluous, as epiphenomena. Nevertheless, the evolutionary model struggles to account for the archaeological and ethnographic evidence, and the enigmatic psychological elements may

not be irrelevant. The psychological aspects seem to suggest warfare is more than mere intergroup aggression and may be unique not only to humans but to humans living in social contexts that developed recently in evolutionary terms.

As the basis for sublimation and the enjoyment of war, clothing and sexual shame provide a parsimonious explanation for the intensification of intergroup aggression in contexts of social complexity after the last ice age. Clothing is consistent with evidence for war becoming more widespread late in human evolution — though not universally, being less evident in societies where clothing (as genital cover) was not routinely present.

Conclusion

War is a prominent feature of complex human societies that emerged in some parts of the world after the end of the last ice age. Complexity — and war — is associated with the presence of clothing, specifically, the use of clothing for purposes of genital concealment and sexual restriction (Gilligan, 2023a, b). Intergroup aggression occurs in many hunter-gatherer societies, and war is not restricted to economies with agricultural practices — which, for several reasons, correlate with social complexity and clothing (Gilligan, 2019). The key anthropological distinction is not between hunter-gatherer and agricultural economies but between clothed and naked societies.

The enjoyment of war has a biological basis (the sexual drive and its sublimation), a social basis in restriction of the sexual drive (hence a correlation with social complexity), and a prehistoric basis in the origin of clothing and sexual shame — hence the archaeological evidence for its prominence in recent prehistory. As a supplement to the evolutionary role of intergroup aggression, a new perspective that highlights the enjoyment of war as a repercussion of clothing may be strictly unnecessary but nonetheless useful to fully account for the phenomenon of war.

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