An Integrated, Multi-Level Approach to Interpersonal Aggression and Family Violence

By Joseph Michalski*

The study of interpersonal aggression has been carried out for the most part in separate spheres by experts from an array of academic disciplines. To advance a deeper understanding of these issues, however, requires a more conciliatory and interdisciplinary approach. The article offers just such an integrated approach, using a multi-level heuristic framework that has direct parallels with ecological modeling. In addition, the approach expands the analytic focus to reflect different aspects of complex human behavior, which include: 1) the behavioral investment framework, or the bio-psychological reality of the human animal; 2) the socialization framework, or the social psychological aspects of human learning and development; 3) the justification framework, or the language, knowledge, and meaning systems that one acquires to facilitate interpersonal communication and to justify one's actions; 4) the social location framework, or the social interactional dynamics of interpersonal relationships that animate one's daily life as a member of various groups and social networks; and 5) the societal context framework, or the broader institutional forms and sociocultural conditions within which individuals and groups are situated. The current approach bridges human neurophysiology and psychology with sociology in a developmental, ecological context that examines each dimension of human behavior. While the five dimensions can be separated analytically, in practice these overlap to exert multiple influences. Such a conciliatory framing permits a more comprehensive analysis of human social animals as situated within their natural environments. The paper outlines how each of the five levels contributes to expressions of interpersonal aggression by elaborating on key mechanisms that operate across the different levels of informational complexity. Several examples of empirical research are cited to illustrate the core principles that operate within and across the five complementary frameworks.

Keywords: *interpersonal aggression, violence, ecological model, integrated framework*

Introduction

The scientific community writ large has long been preoccupied with the study of human aggression and violence, but especially since the 1960s (e.g., Lorenz 1966, Tinbergen 1968). As with most important social scientific concepts, though, a semantic "jungle" exists with respect to the conceptualization and definitions of what shall be described here as *interpersonal aggression*. Most approaches tend to characterize interpersonal aggression (IA) as any intentional behaviors meant to harm another person who prefers to avoid such harm (Van Lange et al. 2017).

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^{*}Professor, King's University College at Western, Canada.

Violence represents a more extreme form of IA, or the *physical* expression of actions aimed at harming another human being (Anderson and Bushman 2002)¹. Weiner et al. (1990, p. xiii) thus define violence as "the threat, attempt, or use of physical force by one or more persons that results in physical or nonphysical harm to one or more persons."

Despite the universal existence of aggression among higher-order animals (Been et al. 2019), a comprehensive explanation has remained elusive. The reasons are many. In the first place, the cognitive division of labor within the sciences has created divergent paths to explain specific facets of human behavior across fields such as psychology, economics, political science, anthropology, and sociology. Each discipline contributes to our understanding of the multifarious aspects of the human condition by highlighting key concepts, such as personality characteristics, the scarcity of resources, the concentration of power, the importance of culture, or social learning differences. Yet a concerted attempt to unify these efforts to develop integrated explanations of human behavior arguably would generate more considerable advances.

There are additional challenges that must be overcome. For instance, unlike the study of electrons in controlled laboratory settings, no two human individuals are identical or have the same histories. Moreover, human beings *change* ever so subtly in response to stimuli and learn (or fail to learn) from their experiences to varying degrees. The feedback loops mean that new information becomes available which can influence human responses to their circumstances. These emergent conditions are typically far different from what happens in the laboratory, wherein human subjects are extracted from their natural environments to have their behaviors observed. The simple fact that individuals are being studied may affect their behaviors too, especially to the extent that subjects are aware of the research process (i.e., the "Hawthorne effect"). Ethical concerns further limit the types of manipulations that can be performed on humans.

Finally, some people attribute the perceived limitations of the social sciences as due to the free will of conscious, sentient beings who can alter their behaviors in response to an unlimited array of possible stimuli or situations (Searle 2001, see Zimmerman 1966). In principle, these stimuli—as well as human interpretations and reactions—can be identified and presumably should yield predictable responses. The intricacy of multiple factors and their interactions, however, presents an almost insurmountable challenge. How could scientists ever map the entire array of influences that shape the behaviors of human beings?

One way forward involves examining the interrelationships of factors across different levels of behavioral complexity. Most social scientists work within narrow disciplinary perspectives that logically reflect their many years of training and specialization within their particular field of expertise.² Not many scholars,

¹Similarly, the International Society for Research on Aggression views aggression as any "behavior motivated by the intent to cause harm to another person who wishes to avoid that harm. Violence is an extreme subtype of aggression" (see https://www.israsociety.com/ blog/anger-aggression-and-violence-it-matters-that-we-know-the-difference).

²As Daly and Wilson (1988, p. 2) noted in their comparative study of homicide, "researchers stake out careers as the leading advocates of one or another hypothesis or 'model'."

therefore, have committed to working in a truly conciliatory or interdisciplinary fashion. As a result, the explanatory power of their work often remains more limited in scope. As Zegans (1971, p. 355) observed more than a half century ago, "A unified theory of human aggression must confront the problem of man's (*sic*) complexity." Herein the intellectual shift toward multi-level, ecological models has offered a path forward that has the potential to be extended much further.

The Basic Ecological Framework

Bronfenbrenner (1979, 1989) offers a seminal example of a multi-level, integrated approach to the study of human behavior or, more specifically, *human development*—and the dynamic aspects of personal characteristics that evolve and change over one's lifetime. His ecological systems model posits that one cannot fully understand the development of the human person without examining the multiple levels and contexts within which each individual interacts, i.e., the microsystem, mesosystem, exosystem, and macrosystem. The overarching logic can be summarized as follows:

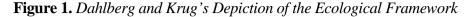
 $D_t = f_{(t-p)}(PE)_{(t-p)}$

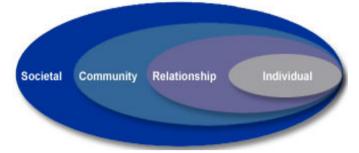
Where:

 D_t = human development at a discrete, observed time $f_{(t-p)}$ = a function of a period of time during which different forces are operating $PE_{(t-p)}$ = an interactive function of personal *and* environmental features during a time period

Bronfenbrenner (1989, p. 190) states that each person's characteristics at a particular time in life "are a joint function of the characteristics of the person and the environment over the course of that person's life up to that time." The logic situates the human being within a nested hierarchy of environmental contexts that interactively shape the individual's understanding and awareness of reality, as well as one's active responses to physical and social environments. Human development unfolds across the lifespan as a continual process, which includes changes in physical and mental capacities—and yet always mediated further by the changing fields of social relationships (Levitt 2000). The value of the approach stems from an intentional focus on linking individual dispositions to the broader environments within which human development occurs.

Without knowledge of social contexts, the ability to examine precisely which features are salient to the explanation of IA remains quite limited. A comprehensive analytic strategy demands a concerted effort to study and integrate those factors across multiple levels and dimensions of human existence that affect patterns of behavior. As depicted in Figure 1, Dahlberg and Krug (2002) provide a heuristic illustration of a multi-level ecological framework that situates the individual as embedded in a series of all-encompassing ellipses:





The basic model identifies the individual as the focal point of analysis, who possesses a set of genetic and biopsychological traits, personality characteristics, and a personal history. Each individual has a range of abilities and capacities, including latent potentialities that may emerge in specific environmental contexts. As a straightforward illustration, every human being with the full complement of anatomical features and physical dexterity has the potential to jump off the ground to varying heights. Yet genetic capacities, the exposure to healthy diets, learning proper technique, and muscle development afford some people with exceptional abilities the opportunity to become basketball or track stars, while others may use that explosive capacity in the realms of hunting game or protecting oneself in warfare.

At the same time, individuals cannot survive more than a few days after birth in the absence of interpersonal relationships, which must be sustained throughout one's formative years and in varying combinations across the lifespan. Apart from innate capacities and background factors, everyone has a social location relative to everyone else in social space, defined by the webs of interpersonal relationships that establish the parameters of their daily interactions. The relationships clearly vary in their degree of supportiveness and resource exchanges. Perhaps even more profoundly, the various statuses that individuals occupy in social space relative to one another have enormous impacts upon how people are evaluated, interact with one another, and their levels of resource exchanges.

The third level of *community* includes the social settings of the neighborhoods, schools, and workplaces within which much of social life unfolds in contemporary societies. The immediate environments and physical spaces that people inhabit assuredly affect the nature of the transactions and interactions that occur. The research has long demonstrated, for example, the importance of issues such as impoverished living conditions and the adverse effects of lead poisoning, toxic air quality, substandard housing, poor nutrition, and stress upon healthy child development and family well-being³. Equally important are the sociological aspects of communities, such as poverty rates, employment opportunities, home ownership, literacy levels, and the countless elements that shape the everyday experiences of individuals and their families. These contextual variables help define the contours of the social landscapes within which people's lives are situated. The interweaving of

³Numerous studies have verified the significance of these factors, including those by Kaplan-Sanoff et al. (1991), Legot et al. (2012), Richardson (2002), and Salazar et al. (2019).

social, spatial, and physical environments cannot be ignored in the effort to explain the emergence of aggression and violence.

The fourth level consists of the societal conditions and cultural climate that may encourage or inhibit certain behavioral expressions. The coordinated efforts of individuals and groups within societies create the economic, educational, legal, religious, and familial institutions-and the myriad formal and informal policiesthat help regulate and contribute to the overall health, well-being, and sustainability of their communities. In addition, societal groups establish the norms that either support or denounce IA and violence as acceptable means for resolving conflicts, often rooted in preceding historical conditions and past practices. The comparative research reveals tremendous cross-cultural variations in the general use and acceptance of different types of IA and violence. Ember and Ember (1992) confirmed such diversity in their cross-cultural study of 186 mainly pre-industrial societies regarding their propensity for warfare, including a minority of cases (28%) where warfare was "absent or rare." Yet no society has ever been violencefree, especially at the level of individual and interpersonal conflicts which, at times, can escalate to physically aggressive confrontations. Consequently, societies around the world and throughout history have developed a range of distinctive policies and practices to regulate the use of aggression and violence at both the interpersonal and intergroup levels.

A Consilient, Interdisciplinary Framework for Interpersonal Aggression

The ecological approach emphasizes the disparate influences that operate across the multiple levels of human experience as necessary to understand and explain more fully why IA might emerge. Even if one believes some people are inherently aggressive, there are several limiting factors that might inhibit any routine or systematic use of aggression or even violence. For instance, an individual inclined to use aggression might consider the energy that must be expended, the personal risks of physical harm, any foreseeable psychological and emotional outcomes, the degree of social acceptability, the possible legal ramifications, and the impact upon one's existing network of social relations (among the multiple factors). Indeed, there are innumerable risks and a plethora of adverse consequences to be evaluated.

But why engage in such behavior if there is any number of less costly alternatives available? That type of "why" question requires some consideration not merely of the social conditions which shape the propensity for IA and violence, but the psychological drivers that influence the behavioral outcomes of sentient, cognitive human beings. Nature and nurture interact; both unquestionably matter. Hence psychologists and sociologists alike have important insights that can enhance our understanding if properly integrated. To that end, some social scientists have turned to multilevel modeling to assess the impact of group differences in behavioral outcomes and possible associations between the characteristics of persons and these outcomes (Avinun et al. 2018, Rose 2018).

The scientific community can similarly emphasize a more conciliatory strategy to knowledge-building that might be described as *integrated pluralism*. Rather than privilege a single theoretical approach, the most effective strategy should draw upon the multiple disciplines and paradigms that address questions of *why people behave as they do*. Complementary perspectives can be synthesized to offer a more comprehensive understanding of the different facets and evolving nature of human behavior (Espinoza and Warner 2016). To explain IA requires that social scientists investigate key processes that underlie the emergence of certain behaviors (e.g., violence) initiated by individuals in the context of their interpersonal relationships, under diverse historical circumstances and across cultural settings. The multiple levels of the human experience encompass biological, psychological, and sociocultural realities, which interweave to elicit responses to environmental stimuli. Individual, familial, and societal behaviors then can be described and explained with a more encompassing conceptual apparatus.

The approach here starts from the premise that human beings are social primates, whose fundamental traits and characteristics have developed via naturalistic evolutionary processes. The different forms of human aggression are the byproducts in part of such processes, based upon a "complex interaction between environmental stimuli, sensory structures, information processing, emotional affect, motor response and even inhibitory or control mechanisms" (Corning and Corning 1972, p. 11). Human beings' perceptual, motivational, and emotional architecture reflects an evolved system of behavioral investment such that even aggressive behavior can be described *scientifically* (if not always *morally*) as an adaptive byproduct of natural selection. From an evolutionary psychology perspective, Homo sapiens' adaptive system operates both at the motivational and emotional levels, combining an orientation toward various goal states that are counter-balanced by positive and negative feedback signals.

In addition, the perceptual-motivation-emotional system can be divided into two domains: the material and the social environments. The material environment dictates behaviors aimed at the individual's core survival needs, such as acquiring resources, temperature control, and avoiding injury. The environmental domain also facilitates processes such as growth and mastery (e.g., toolmaking). Henriques (2011, p. 16) captures the logic here via the "influence matrix," which maps the underlying motivations and psychological mechanisms that dictate how "humans process social information, develop social goals, and are guided by emotions in navigating the social environment." As social creatures, humans experience their place in the social influence network as deeply felt in an embodied way. People intuitively track their felt sense of being valued and respected, as well as the degree of social influence they have over others and vice versa. Threats of the loss of respect, love, power, or freedom are powerful motivators that individuals react to based on complicated—and highly evolved—biological-psychological architectures.

Extending the theory further, humans are unique primates because of their specific capacity for syntactical language, the recursive nature of their explicit self-awareness, and by virtue of being raised in specific cultures that differ across ecological, technological, and historical contexts. These factors ensure greater intraspecies diversity compared to other animals (including chimpanzees and bonobos, which are the most sophisticated and closest of human relatives). A core sociological wisdom states that while humans are *born primates*, they must develop and be socialized within specific linguistic and cultural contexts to *become persons* (Smith 2010). The parents and caregivers of infants must invest tremendous amounts of energy and resources to ensure that their children achieve the status of persons, defined as self-conscious entities capable of making choices for which they are deemed responsible and accountable within their social environments.

To advance the explanation of IA, a heuristic model has been developed that allows for a synthesis of the relevant social scientific theories, as well as an evaluation of empirical evidence that pertains to each facet. Several mainstream approaches overlap in large measure at each level, sometimes emphasizing the same explanatory factors. The current model thus has analytic relevance far beyond the study of human aggression and violence since the social forces and psychological mechanisms deduced from multiple theories apply to human behaviors across the full scope of historical and cultural contexts. The theoretical approaches that span multiple levels of human behavior include five interrelated frameworks: 1) behavioral investment; 2) socialization; 3) cultural justification; 4) social location; and 5) societal context.

The main thesis can be stated accordingly: *the combination of these five frameworks provides a more comprehensive, holistic explanation of interpersonal aggression and, in the extreme, the violence that sometimes erupts in the context of human exchanges.* As Thurner et al. (2018, p. 20) argue, the complexity of human social processes and behavioral outcomes reflect the fact that these are "evolutionary, path-dependent, out-of-equilibrium, and context-dependent." Most notably, each of aforementioned frameworks offers important contributions to the study of IA. Hence to understand why human beings are aggressive and even violent at times with one another requires a concerted effort to develop an integrated, interdisciplinary framework, such as the approach proposed in Table 1 (see Michalski 2022). The framework situates the human being within multiple developmental spheres a la Bronfenbrenner's (1979) approach, while simultaneously identifying the key analytic questions and explanatory principles that must be considered to fully account for behavioral outcomes.

The five dimensions outlined reflect the different aspects of complex human behavior, which include: 1) the bio-psychological reality of the human animal; 2) the social psychological aspects of human learning and development; 3) the language, knowledge, and meaning systems that one acquires to facilitate interpersonal communication and to justify one's actions locally; 4) the social interactional dynamics of interpersonal relationships that animate one's daily life as a member of distinct groups and social networks; and 5) the broader institutional arrangements and sociocultural environment within which individuals and groups are situated.

Theoretical Framework	Development Stage	Main Analytic Questions	Explanatory Principles
Behavioral Investment	Human animal	What types of behavioral investments enhance the human animal's survival and reproduction? How do differences at the physiological, neurological, and temperamental levels affect interpersonal aggression (IA)?	Biopsychology: The central nervous system computes the expenditures of energy on an investment value system. Response patterns to environmental stimuli reflect evolved adaptations that enhance natural selection.
Socialization	Social animal	What are the key aspects and mechanisms of social influence that shape human development? What kinds of reinforcers help condition the <i>social animal's</i> responses to environmental stimuli such that IA gets channeled in socially (in)appropriate ways?	 Social psychology: The human animal must be nurtured from birth to survive, as well as acquire core information and competencies. Social learning processes continue non-stop through one's everyday experiences and social interactions.
Cultural Justification	Homo iustificationem	What role do cultural beliefs and values play in the "normalization" of the dominant practices in one's more immediate social world? What belief systems prevail to help to coordinate human behavior, as well as influence individual and group justifications for IA?	• Culturology: Different human groups within and between societies have developed distinctive cultural forms of expression and their associated justification systems to communicate and regulate human behavior.
Social Location	Human person	What are the primary social forces that energize and activate social interactions? How do network positions and status differences shape both interpersonal and group dynamics, such as the likelihood of initiating or experiencing different forms of IA?	 Micro-sociology: Several dynamic social forces combine to create the social fields within which each person interacts and experiences one's version of reality, shaped by the intersectionality of the many statuses that one possesses in relation to others.
Societal Context	Society	What are the main institutional and ideological forms that characterize the society in which individuals and groups live out their lives? How do groups structure and coordinate processes of production and distribution across ecological niches and historical contexts – and to what degree does the prevailing normative framework sanction IA in various forms?	Macro-sociology: Every society develops social institutions and ideological systems to organize and coordinate human activity, including the production and distribution of their essential resources within ecological niches, which include highly variable legal and/or normative frameworks.

Table 1. An Integrated Theoretical Framework of Human Development and Interpersonal Aggression

Table 1 includes a brief label that links each developmental aspect of the human being to the gradual evolution from human animal to the emergent level of society. While every individual's life unfolds dynamically over time, the various interrelated dimensions of human behavior apply across the lifespan. In the absence of a catastrophic incident that severely damages a person's faculties, no one ever completely stops being a human animal, experiencing socialization and social influences, framing and justifying one's behavior, interacting with people in one's immediate environment, and living out one's life within the full panoply of sociocultural contexts relevant to the individual's historical location.

The five analytic levels link together the essential pieces of the human behavioral puzzle, with each perspective concentrating on explanatory principles that address questions relevant mainly to investigators who study behavior in terms of different levels of informational complexity. While the many sciences evolved unevenly and over different historical eras, the net result has been the creation of siloed systems of academic inquiry. The disciplines have tended to focus on disparate questions that could only be analyzed by experts in that respective field at the cost of scholarly collaboration, interdisciplinarity, and cross-fertilization of ideas. The calls for more consilient and cooperative approaches have been sounded literally for decades, as the following extended quote from the 1988 International Society for Research on Aggression World Conference demonstrates (Maiuro and Eberle 1989, p. 13):

True interdisciplinary exchange is still a relatively rare phenomenon in the field of interpersonal violence. When reading the literature or attending a typical conference, one is often reminded of the tale of "The Blind Men and the Elephant," in which six investigators attempt to identify the nature of the beast by grasping a different part or appendage. Given the scope and complexity of violent behavior, we need to be aware of the findings from other disciplines or we likewise run the risk of mistaking an elephant for a snake or a tree.

The current approach thereby bridges human neurophysiology and psychology with sociology in a developmental, ecological context that examines each dimension of human behavior. While the five dimensions can be separated *analytically*, in practice these overlap to exert multiple influences (and often simultaneously). Such a conciliatory framing permits a more comprehensive analysis of human social animals as situated within their natural environments. A secondary benefit of the more integrative, holistic approach is the manner in which different analytic levels and scientific language systems can be reconciled. The ultimate aim should be that the entire metaphorical elephant might come into clearer focus rather than just certain appendages.

Level I: Behavioral Investment Framework

At the most basic level of the human *animal*, the behavioral investment framework (BIF) focuses on the commitment of effort and energy to achieve outcomes relative to investment returns. All else equal, behaviors that can accomplish objectives to enhance human well-being and survival efficiently will be valued more relative to those that require a greater investment for the same yield. Henriques (2011, p. 46) views behavioral investment as a way of describing "animal behaviors as a form of commerce with the environment." In effect, what expenditures (time, energy, opportunities, etc.) must animals commit to certain actions vis-à-vis the expected returns on their investments?⁴

First, the principle of energy economics suggests that animals strive to acquire workable energy from their behavioral investments in the most efficient manner

⁴Zipf (1949, p. 1) noted that human beings tend to behave in a manner consistent with the least amount of effort. The principle of least effort refers to the idea that a person "will strive to solve his problems in such a way as to minimize the *total* work he must expend in solving both his immediate problems and his probable future problems. That in turn means that the person will strive to minimize the probable *average rate of his work expenditure* (over time)."

possible. Second, the brain and the nervous system serve as the computational control mechanisms that process the vital information that informs decisionmaking around these investments. Finally, the learning principle emphasizes that animals have varying capacities to master and develop new forms of coordinated movements and responses to their environments through interactions within their habitats. These latter processes are often linked to the developmental stages of the animal, which inevitably continue along the unceasing pathway of time from the emergence of the animal's life until physical death.

The learning principle at the animal level has been described as "associative learning," which refers to the behavioral responses of animals that stem from the reinforcements associated with different stimuli (Abramson 1994). Ginsburg and Jablonka (2010, p. 13) describe the neural process as involving connections between sensors and effectors that occur as a result of "past memorized experiences (that) allow anticipation of future events and rewards, and discrimination among different classes of cues." The specific mechanisms are classical and operant conditioning, which psychologists believe to be the foundational forms of learning (mental behavior) that characterize species of sufficient developmental complexity. While by no means the only determinants of human beings' diverse behavioral repertoires, these mechanisms contribute to a greater understanding of the behavioral outcomes associated with embodied, cognitive beings known as Home sapiens.

The implications for the life of the human *animal* are profound, as living organisms consume energy and process information to live effectively in their environments. The fundamental aspects of human survival at a minimum consist of securing resources for one's physiological well-being (e.g., food, water, air, sleep, shelter). These efforts alone can involve an assortment of behaviors that might strike an observer as aggressive or possibly even violent. The literal struggle to survive afflicts the human animal and helps shape responses much like any other organism, which includes a plethora of heritable traits and genetic predispositions. At the same time, the human animal's efforts cannot be divorced from the child-rearing environment and socio-cultural context into which one has been born. Any aggressive behaviors that human beings exhibit are the byproducts of the complex interface between biopsychological and sociocultural forces.

The family into which human animals are born and early childrearing environments have lifelong impacts, from the physiological to the cultural dimensions of human existence. The earliest years of the infant's life involve exposure to highly variable environments in terms of levels of safety, stability, and stress. The infant may not be able to articulate her experiences verbally (beyond basic or non-linguistic vocalizations), but the body's initial physiological programming moves full speed ahead and retains key information in terms of adapting to stressful situations. The key explanatory features of the human animal from the BIF include the importance of the following:

- inherited traits, genetic influences, and individual characteristics
- perceptions of sensory inputs and neuro-informational processing

- the brain's capacity as a computational-control processor to evaluate energy expenditures
- the associative learning that occurs in natural environments linked to reinforcement schedules that stimulate neurophysiological reactions
- the acquisition of neuro-physiological knowledge and the development of biological memories that facilitate behavioral modifications aimed at efficiency and survival

Based on the BIF framework, how do differences at the genetic, physiological, neurological, and temperamental levels affect IA? The overarching thesis suggests that IA has evolved as an adaptive mechanism to facilitate human survival and reproductive success (Buss and Shackelford 1997). The specific mechanisms involved include a range of inherited traits and genetic influences, especially with respect to the neuroendocrinal foundations of aggression and the impact of varying levels of neurotransmitters (e.g., serotonin, dopamine, norepinephrine) and neuropeptides, such as vasopressin and oxytocin (Sarkar and Wranham 2023, Zhang-James and Faraone 2016).

Repeated exposure to significant stressors (or growing up in a toxic environment) increases the propensity of the individual to respond both physiologically and emotionally with IA to situations where others may have vastly different responses. A key aspect that many social scientists ignore relates to the impacts of one or more experiences of early childhood adversity, which affect the development of "biological memories" that "weaken physiological systems and produce latent vulnerabilities to problems that emerge well into the later adult years" (Shonkoff et al. 2009, p. 2257). In effect, the human animal learns and establishes memories at the neurophysiological level just as powerfully as the mental self learns to develop memories at the sociocultural level.⁵ Both have enormous implications for subsequent displays of aggression and violence based on the mechanisms associated with neuro-informational processing and energy expenditures.

In addition, if certain types of aggressive impulses are reinforced positively as efficient means for achieving one's objectives, then IA should occur with greater frequency at the individual level. To the extent that neuro-physiological knowledge and biological memories accrue as the individual adapts to one's immediate environment, these will further determine the degree to which IA enhances the individual's adaptive capacities and survival. At the same time, much of the IA and violence that humans display cannot be divorced entirely either from their learned responses or socialization experiences.

⁵Shonkoff et al. (2009, p. 2256) offer a more detailed explanation: "Toxic stress refers to strong, frequent, and/or prolonged activation of the body's stress-response systems in the absence of the buffering protection of adult support. Major risk factors include extreme poverty, recurrent physical and/or emotional abuse, chronic neglect, severe maternal depression, parental substance abuse, and family violence. The defining characteristic of toxic stress is that it disrupts brain architecture, affects other organ systems, and leads to stress-management systems that establish relatively lower thresholds for responsiveness that persist throughout life, thereby increasing the risk of stress-related disease and cognitive impairment well into the adult years."

Level II: Socialization Framework

The socialization framework shifts the focus to the learning processes at the cognitive level that occur mainly through social interactions and the relatively stable relationships that human beings form. While by no means the only social animal on the planet, human beings certainly exhibit a distinct array of relationships and interactions with other members of their species unparalleled elsewhere in nature. At the most basic level, the human animal requires an incredibly extensive period of care and training to establish independence, which eventually means achieving the status of "personhood" and social recognition as a member of a human society. Whereas human *beings* are born, human *persons* develop only through their prolonged periods of interaction with other human beings via the socialization process.

The intersection of psychology and sociology occurs precisely at the level of socialization, or wherever one places an animal directly into a physical habitat and social environment. The more evolutionarily complex species typically require longer periods of care and nurturance. The information and capacities necessary for their long-term well-being and survival can only be obtained through the process of social interaction that involves cognitive learning processes, rather than genetically predetermined or pre-programmed responses. Among humans, the socialization processes are universal, even though the specific content learned varies considerably across cultures. Most important, the newborn arrives in a state of complete dependence on others for survival. Without the provision of basic needs and the intervention of other human beings, the infant cannot survive typically more than a few days. Nor can babies develop the capacities for self-care or language without human interaction.⁶ While these are obvious and well-known assertions, the implications for human social behavior are profound.

In the first place, human socialization inevitably occurs in sociohistorical and ecological contexts. Faris (1947, p. 159) suggested that the institution of the family throughout history has served as "a central mechanism for the transmission of culture (through) a "slow, informal, and unwitting apprenticeship." That "unwitting apprenticeship" includes language acquisition and age-specific developmental milestones that help to establish each person's identity. The development of the human "self" occurs just as naturally and profoundly as one's linguistic capacities, reinforced daily through extended periods of interactions, the development of social bonds and attachments, and the social influences upon personality traits and the individual's emerging identity and relationship with one's parents (Kochanska et al. 2004).

The dynamics of human social development always occur within family- and community-specific cultural environments that provide both the material *and*

⁶The developmental period for humans extends for several years, as even the brain develops mainly *after* birth (including the prefrontal cortex). Unlike other primates, human infants are almost immobile at birth, unable to cling to their mothers or lift their heads. The helplessness of newborns means an infant would die within a matter of days, though one newborn survived six days after being abandoned in a drain in Australia (see https://www.smh.com.au/national/nsw/newborn-baby-survived-for-six-days-after-being-dumped-in-sydney-drain-20141124-11se91.html).

symbolic resources that fundamentally shape human development. These environmental contexts include early childhood exposures and developmental circumstances, including parenting capacities and interactions, which can vary dramatically sometimes even within communities or from one family to the next. The conditions of the childrearing environment directly impact child development in general and the child's growing understanding of the appropriate and inappropriate uses of aggression.

For example, Silver et al. (1969) conducted a multi-generational study of families where the evidence revealed that abusive parents were usually abused as children themselves. The violence permeated throughout the family relationships to include spousal abuse and child abuse, while the youngsters themselves were rapidly developing criminal records for engaging in violence. Building upon the earlier research on the modeling of aggressive behavior (Nelson et al. 1969, Harris 1973), Carroll (1977, p. 291) hypothesized that "the greater the extent to which physical violence is used on a child, the greater the chance that he or she will use violence on other family members as an adult." The study was one of the earliest to offer empirical support for the "intergenerational transmission of violence thesis," with additional hypotheses that included the additive impact of families being low in warmth, high in stress, and same sex identification.

Bandura's (1973, 1977, 1978) work helped establish further the importance of social learning as a determinant of significant others' influence in shaping coping patterns and family dynamics. His cumulative body of research stressed that most expressions of aggressive behavior are complex responses to external stimuli and require considerable learning to enact. Those who experience or witness IA during childhood learn to accept violence as a way of resolving their differences, which increases the likelihood of repeating such patterns in their relationships as adults. The importance of primary socialization within one's family cannot be overstated, reinforced as well through the subcultures and communities in which families reside more generally.

Akers (1973) elaborated on the social psychological processes involved that connect social learning with the intergenerational transmission of violence thesis. These include the observation of significant others' behaviors (differential association), the internalization of definitions of the situation that are learned, the imitation of esteemed role models' behaviors, and patterns of differential reinforcement, imitation, and modeling (Akers and Silverman 2004). Hence from the socialization framework, the key mechanisms that are associated with distinct forms of human behavior and the emergence of aggression in particular include the following factors:

- direct influences and nurturing behaviors of primary caregivers (especially parents) and significant others
- imitation and internalization associated with social learning processes
- factors linked to the development of an individual's identity within familial and cultural environments
- dynamics of social interactions that shape/reinforce individual personality characteristics

• material and symbolic resources available within specific learning environments

The most compelling work, especially based on a meta-analysis of twin studies, has provided evidence that heritability interacts with a common familial environment (Miles and Carey 1997). Recent research offers further evidence that IA emerges from the interplay between genetic predispositions and life circumstances (Pishva et al. 2023). Especially in the context of early human development and socialization, there are highly sensitive periods in which genetic programs are activated, imprinting occurs, and the imitation of one's parents or primary caregivers together contribute to the development of aggressive tendencies (Markel 2018).

In terms of the social learning component, Widom's (1989) seminal cohort study of children who experienced child abuse and a matched comparison group who had *not* suffered child abuse helped confirm the cycle-of-violence thesis. Her research focused on the greater likelihood of abused or neglected children being at risk for delinquency, adult criminal behavior, and violent offences (Maxfield and Widom 1996). The diverse studies that have ensued lead inexorably to the conclusion that experiencing—and especially witnessing—various types of domestic violence are decisive risk factors for subsequent displays of aggression and violence (Delsol and Margolin 2004, Messinger et al. 2021). Moreover, a large volume of evidence has shown that abused children have increased odds of perpetrating violence in adulthood, both within and beyond the family (e.g., Heyman and Slep 2002, Wright et al. 2019).

Another fruitful analytic dimension involves research on the "Big Five" personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism) and their possible linkages to IA and violence. The growing body of evidence suggests that different elements of the five-factor model interact with family environmental conditions to reliably predict IA outcomes (e.g., Lone and Albotuaiba 2022). The meta-analytic research emphasizes especially the importance of agreeableness and conscientiousness, as well as the pathological personality constructs of psychopathy, narcissism, and impulsivity, as key antecedents of self-reported behavioral indices of aggression (Hyatt et al. 2019, Jones et al. 2011).

Future research must address an important gap, however, in terms of evaluating the interactional dynamics and "causal direction" linking the development of the individual's identity and personality characteristics to IA in natural environments. There has been only limited research, for instance, that has investigated to what extent long-term family interactional patterns may help shape personality development and the immediacy of the contexts within which different forms of IA might emerge. Moreover, the nature of the material and symbolic resources available within the immediacy of one's learning environment has not been studied systematically and may contribute further to our understanding of the development of aggressive tendencies. Indeed, the above factors and associated effects of social learning should not be considered determinative. The occurrence of IA and violence always requires some consideration of the sociocultural environments and networks of social relationships within which individuals and groups are situated.

Level III: Cultural Justification Framework

An essential divide distinguishes human beings from other animals due to a requirement that extends beyond the nature of their symbolic forms of communication. In particular, humans frequently must explain *why* they act as they do. The intersubjectivity of language introduces an entirely new problem unique to the human species: the capacity to translate their thoughts and experiences into language for the purpose of communication and, crucially, as a form of "justification." Human beings must orient and maneuver themselves within their fields of interactions through activities that are regulated and negotiated through justification processes (Boltanski and Thévenot 1991). The study of human justification systems and their social contexts quickly reveals that some forms of IA and the use of physical force are acceptable or even desirable under certain circumstances.

The cultural justification framework highlights the ways in which people communicatively navigate through the social universe. In the broadest sense, human beings create social fields of interpersonal matrices that are yoked together by systems of justification. Embedded within human communications are the diverse forms of reasoning, excuses, arguments, beliefs, norms, and rationalizations that express why their claims and actions are warranted. While many species have language and coordinate their activities for certain purposes, humans alone must justify their actions to explain why they think and act as they do. The lion that kills a zebra in the Serengeti National Park does not worry about his pride's judgments of his behavior, or that some might question his homicidal nature or non-vegan lifestyle. In contrast, the diverse dietary practices of humans are subject to a wide range of evaluations of both *what* people eat and *how* people eat.

The process of justification has a reciprocal nature as well. Not only must humans justify their actions, but everyone else similarly evaluates the legitimacy of a person's claims and behaviors. The explanation of human social behavior can occur either at the level of why individuals act and react as they do *or* in terms of sociolinguistic justification. Two core questions are relevant. First, why do human beings behave as they do in specific interactional contexts? Second, why do human beings justify their actions as they do? The former question focuses on the complex interplay of factors that shape human behaviors within natural habitats. The latter question calls attention to the sociolinguistic devices that humans use to justify their actions as cultural beings.

From a scientific perspective, IA can be described as a type of behavior directed to achieve designated outcomes that may or may not be considered acceptable or *justifiable* in certain situations. For example, most people do not question the legitimacy of soldiers killing one another on the battlefield. Even in everyday social life, the legal system recognizes certain lethal behaviors as forms of "justifiable homicide" or "no fault" homicides. These types of encounters ordinarily involve the death of an individual under circumstances of necessity or in the line of duty (either commanded or authorized by law). Such homicides are characterized by a lack of criminal intent, involving various social contexts such as responding to a threat in self-defense.

In fact, the justice system classifies most police shootings as "justifiable homicides," even though evidence in certain high-profile cases captured on camera contradicts that conclusion. Some instances of police engaging in lethal actions, however, have led to criminal convictions, such as George Floyd's death while being detained by police officer Derek Chauvin (and three colleagues) on May 25, 2020. Chauvin was convicted of unintentional second-degree murder, third-degree murder, and second-degree manslaughter. Whether the use of physical force can be justified or not varies in terms of the immediacy of the situations, which reflects the interpretations and cultural justifications of those involved. In effect, a continuum exists in terms of the degree of acceptability of different types of IA that occur across societal landscapes.

For the most part, overt forms of IA that result in physical injuries are highly regulated in terms of everyday justification systems. Acts of aggression are deemed justified only in certain settings (e.g., a boxing match) or threatening situations, such as being attacked and responding with an equal measure of violence in self-defence. There are still other contexts that do not necessarily conform to mainstream society's codes of conduct where IA might be permitted. Certain more marginal or deviant subcultures (or counterculture groups) may sanction violence positively, such as college fraternity hazing rituals, fight clubs, gang conflicts, or terrorist groups. Thus the cultural justification framework calls attention to the following issues as having explanatory value in terms of engaging in the use of IA or even violence:

- the degree to which social behaviors are defined as appropriate under various circumstances
- the level of shared agreement as to culturally justifiable behavioral expressions
- patriarchal-matriarchal (and alternative) belief systems
- the legitimization of different power dynamics
- the cultural acceptability of violence

Wherever human beings engage in IA, the interpretive component of the social exchanges must be considered to determine the degree to which the actions are considered legitimate and justifiable by those directly involved and any observers (including those who become aware of the events only after the fact). The learning aspect of the justification process commences early on in life, such that even pre-school children have developed clear ideas about the acceptability of aggression and violence under various circumstances (e.g., Howell et al. 2012, Swit et al. 2016).

The research confirms that by the time young people have entered adolescence, they have established belief repertoires that in the main condone or reject IA in their relationships, although those beliefs do not necessarily remain fixed for all times (e.g., Valdivia-Peralta et al. 2021). The support for IA may be conditioned by family of origin determinants, parental attachments, and the ability to regulate anger (e.g., Grych and Kinsfogel 2010). Regardless of the precise mechanisms involved, the acceptability of violence has particularly strong predictive value in determining both family violence and aggression in general (Gracia et al. 2020).

In addition, the importance of gender must be considered in relation to the cultural dimensions of justification systems. Males clearly commit far more violence (especially lethal forms) across a variety of societal contexts, but especially to the degree that gender-based differences emerge whereby males condone the use of IA more than females (O'Hearn and Margolin 2000, Willis-Esqueda and Delgado 2020). The effects are especially powerful to the degree that aggression and violence are accepted and perhaps even *expected* as an appropriate form of gender-based behavior (Rizzo et al. 2021, Sundaram 2013). Those who have social dominance orientations, for example, are more likely to justify violence against women due in part to pronounced sexual double standards (Nida et al. 2022). If widespread agreement exists with respect to these types of belief systems, then higher levels of IA almost certainly can be predicted as accompanying the actual situations that people encounter on a daily basis.

Level IV: Social Location Framework

The idea of "social location" references the notion that everyone occupies a unique position in the social world compared to everyone else. Just as no two physical objects can occupy the same space simultaneously, human beings occupy distinct *social* positions relative to each other and thus cannot occupy equivalent "social space." To be sure, there can be many similarities between individuals, such as being born on the same day or sharing the same language. Yet no two individuals share *every* social or cultural characteristic in common, just as no two individuals share the same brain or exactly the same identity. Most important, as people come into contact with one another, they establish some kind of relationship, even if these are quite fleeting in many instances (such as sitting next to strangers on the subway). The *social* component of their interactions requires an exchange of information, which exists in specific linguistic and cultural contexts. These are crucial features that help to establish each person's unique identity and social position relative to everyone else whom one might encounter.

Human beings effectively create and re-create their social world on a daily basis through the simultaneous exchange of energy and information in their interpersonal relationships. More formally, the social location framework refers to the paradigm of thought that highlights the importance of the multi-dimensional nature of the human social world, inhabited by individuals who possess multiple statuses and navigate within their social networks of relationships. Human beings create actual "fields of interactions" through their interpersonal exchanges, which then act recursively and include feedback loops that shape information exchanges, learning processes, and subsequent behavioral manifestations at the individual level. Ridgeway and Kricheli-Katz (2013, p. 295) define social relational contexts as the "interpersonal settings...in which actors must take the expected reactions of others into account in deciding how to act themselves." Relational contexts always exist temporally and culturally in the social universe to create the distinctive *habitus* for each individual person, such that the actual content that attaches to different configurations varies across societal and ecological contexts (Bourdieu 1977). Human fields of interaction by definition are the settings within which social forces operate to produce differential responses to various stimuli, as well as the evaluations and judgments that flow from the participants involved.

The socio-spatial configurations of the social networks within which human beings are situated involve the intersection of multiple statuses that define and position each individual relative to everyone else, which subsequently influence the direction of the behavioral responses that ensue. Sociologically speaking, individuals can be characterized as evaluative beings who use information to assess everyone's background characteristics and status positions relative to one another, as well as across the social contexts within which they encounter each person. Social locations are defined, therefore, by the multiple social status positions that each individual occupies in relation to everyone else within their social networks or fields of influence. While every relationship can be described by the same specific categorization processes, the different status positions vary in terms of their salience across social contexts.

Three fundamental *social* forces arguably derive from the geometric shapes, social distances, and field configurations formed in the course of human interactions. Just as "psychological forces" influence individual decision-making processes, "social forces" influence how people interact and relate to one another within their social fields. Each of these social force vectors reflects a combination of multiple subdimensions. These dimensions convey the forces (or "influences") that stem from status differences separating people in social space: vertical distance, relational distance, and cultural distance.

Vertical distance refers to the hierarchical dimension of social life, defined by any type of *social inequality* in the distribution of valued resources, such as wealth, power, and prestige. In conventional sociological language, we often speak of the different types of social inequality that might exist across diverse interpersonal and societal contexts. That variability constitutes a vertical force vector that differentiates and separates individuals and groups hierarchically in social space, often with profound effects.

Relational distance refers to the horizontal dimension of social life and deals with the "degree to which (people) participate in one another's lives" (Black 1976, p. 40), along with the *depth* of their involvement. Those who have been in a relationship longer, who interact more regularly, and whose interactions are more intensive (e.g., time alone together at dinner versus a business meeting) have a closer relationship compared to those who do not interact to the same degree. In common parlance, the relational force vector implicates the degree of *intimacy* that social actors have in their relationships with each other.

Cultural distance refers to degree to which people have similarities that reflect the breadth and diversity of their symbolic connectedness (or relative lack thereof), or the degree of *heterogeneity* within and across populations. If one shares the same language, ethnicity, alma mater, or religion with another person, then these would be indicators of cultural similarities. The sub-dimensions can be multiplied much further, but the logic suggests a continuum ranging from extreme homogeneity to maximum cultural diversity. Multiple distances operate simultaneously in every encounter, which complicate the attendant evaluations. In summation, the social location framework attends to the immediacy of one's interpersonal interactions that characterize daily living. The key explanatory issues involve the fundamental "social forces" of nature:

- the amount of social inequality that exists with regarding the distribution of valued resources between individuals and groups
- the degree of social involvement and intimacy that characterize social relationships
- the cultural diversity or heterogeneity that exists within and across individuals and groups
- the size and configurations of the emergent social fields
- the habitus within which persons are located

The research consistently demonstrates that, all else equal, human beings respond with higher levels of aggression and even violence toward those who are lower in social hierarchies, less intimate (and less "important" or necessary for survival), and culturally different (Cooney 2014, Michalski 2017). Each of these types of distances activate the social forces that apply within the fields of human interactions (Michalski 2022, Senechal de la Roche 1996). While personal dispositions, socialization experiences, and cultural justifications help set the stage, the various markers of social distances are the relational cues that shape human responses to the full array of conflicts, competitions, and transgressions that invariably animate social experiences. The multifarious status distinctions prove absolutely vital for determining whether or not aggression occurs in the first place, as well as the level of violence that might ensue.

A range of comparative analyses have demonstrated that the most extreme forms of aggression tend to be directed toward those who are dehumanized and/or demonized, i.e., occupying those positions most marginalized and devalued (e.g., Michalski 2017, Campbell 2015). As Costello and Hodson (2009, p. 4) explain, these "representations presumably justify the exclusion of outgroups from moral consideration (and) render the outgroup less deserving of compassion and respect." The people at the lowest rungs of status hierarchies are sometimes dehumanized or referred to as animals (Kteily and Landry 2022). The concept conveys the idea that those evaluated as such have lost their humanity or status as human beings.

In terms of the more general propositions implied, IA predictably should occur more often and intensify where individuals members of devalued outgroups are (often) outnumbered and live in relatively close proximity to majority groups, while concurrently being: 1) less integrated and less intimate with the dominant group; 2) more culturally distant along multiple dimensions – and less able and/or willing to conform to dominant group norms; 3) in a chronic state of disrepute

(e.g., defined as immigrants or "illegal aliens") such that they suffer from a type of collective liability that precedes their behavior; 4) lacking in allies or social network support; and 5) lack the resources to counter the dehumanization or demonization habitus and narratives effectively.

Level V: Societal Context Framework

The social sciences collectively are committed to evaluating the full range of social structural, organizational, and sociocultural variables and their impacts upon the human condition. The societal context commonly refers to the overarching environment of various supra-individual factors that affect human behavior. Large-scale social systems operate above and beyond the individual level to include the institutional arrangements within which human beings are embedded across sociohistorical contexts. Such an analytic focus does not exist and would not make sense outside of the boundaries of human social life. Homo sapiens appear to be unique in the animal kingdom as the one species that develops coordinated systems of action that are linked through intersubjective communicative strategies and justificatory mechanisms.

These coordinated systems of action are referred to in the social sciences as institutions, or "systems of established and prevalent social rules that structure social interactions" (Hodgson 2006, p. 2). The subjective understanding and knowledge of such normative systems mean that human beings awaken each day well aware of their immediate social and *general* societal locations, with memories, languages, and cultural resources readily available to assist daily navigations. The great benefit of institutions, especially in lieu of fully developed animal *instincts*, derives from their ordering capacities and the creation of stable expectations of others' behavior. The dual explanatory challenge has always been to establish how these institutional forms are created and, perhaps even more important, to identify the mechanisms through which society's institutional forces operate and affect human social behavior.

Three complementary domains can be highlighted in the societal context framework. First and foremost, human beings participate in many formal and informal groups beyond the immediacy of their families and households within their neighborhoods, work environments, community settings, religious affiliations, online associations, and so forth. These broader social connections constitute the fields of interactions in which individuals and groups regularly participate. Similar to the meso-system (or exo-system) discussed in the ecological literature (Belsky 1980, Heise 1998), individuals and their families are always situated within the ecological contexts and historical epochs in which they are born and live out their lives.⁷ Their social networks are located within and sometimes even across societies,

⁷For example, Franzini and Spears (2003, p. 1848) define the social context as "represented by ecological variables that reflect properties of population groups and provide information not captured by individual level data." Their interest stems from the belief that social contexts are directly relevant to the risk factors associated with heart disease and mortality rates.

thereby establishing and defining the more expansive landscapes of the human condition within which human beings interact.

Second, at the macrosocial level, sociocultural contexts clearly differ across societies. The manner in which institutions are organized and the levels of support available vary substantially, which impacts how individuals and families behave and organize their lives. For example, while the United States and Canada share many economic and cultural similarities, there are some important differences between the two societies as well in regard to their historical developments and prevailing value orientations (Lipset 1988). The net result has been the emergence of different levels of institutional support, such as in regard to childcare policies and health care access. For instance, in terms of family supports, one of the most significant differences involves the much more generous parental leave policies in Canada and supplemental supports at the provincial levels, such that new parents or mothers in particular can usually have paid leaves of at least one year. By comparison, no federal leave program exists in the United States, although the Family and Medical Leave Act provides certain employees with a maximum of 12 weeks of unpaid, job-protected leave per year.

Third, as the brief comparisons between selected U.S. and Canadian institutional supports reveal, cultural and policy variations reflect how the zeitgeist of each society may differ in certain respects. The World Values Survey confirms attitudinal differences between the two countries with respect to religious beliefs, as well as many socio-political issues⁸. At the same time, both societies also share many ideological and normative convergences, which include the citizenry's views on the importance of democracy, nationalism, the championing of individual rights and freedoms, capitalism, law and order, science and technology. The survey evidence nevertheless reveals persistent differences such that Canadians tend to be more "liberal" in their views overall compared to their U.S. counterparts.

The societal context framework highlights the notion that every society stresses a core set of values, as well as dominant narratives and mythologies which serve as the overarching discourses that justify existing institutional structures and help shape what people tend to believe. That reasoning extends to the level of perceptions about the appropriate and inappropriate usages of aggression and violence. Some societies are more patriarchal and/or more capitalistic than others, both of which correlate with a greater likelihood to support certain forms of violent behavior. There may be a "culture of honor" or a degree of "hegemonic masculinity" (the legitimation of men's domination) that shape people's views of gender, violence, and "normal" behavior. Li et al. (2018) provide an interesting exemplar through their study of Afghan youth and parents. The evidence revealed that while only a minority endorsed violence in principle, specific situations elicited much more favorable responses and justifications for the use of violence, including wife beating, the beating of daughters, and punishing children who speak out against traditional practices.

⁸The World Values Survey data are freely available online for anyone interested in comparing the responses of nationally representative samples of the total populations from over 100 countries worldwide on a range of social, cultural, economic, and political issues. The data can be accessed at: https://www.worldvaluessurvey.org/WVSOnline.jsp.

As another example from the World Values Survey, respondents were asked whether "violence against other people... can always be justified, never be justified, or something in between" on a ten-point scale. Slightly more than two-thirds of both Canadians and Americans selected either "1" (never) or "2" as their responses, suggesting no real differences. In contrast, further research has shown that some societies are more willing to "go to war" and appear to be "more violent" or even "extremely violent" in comparison with others (Gerlach 2010, Karstedt 2012). As a final illustration, a comparative study of corporal punishment determined that a correlation existed between societies that endorsed corporal punishment and a higher prevalence of violence (including adolescents) *and* a greater endorsement of violence at the societal level (Lansford and Dodge 2008). In certain cases, there may be mythological or religious justifications that reinforce commitments to peacefulness and non-aggression (e.g., Bonta 1996, 2013).

Bucheli and Rossi (2017, p. 3695) explain that "the sociocultural perspective emphasizes the role of shared beliefs in a society that justifies and legitimates violence." If a higher proportion of the population expresses support for certain forms of IA, then potential perpetrators are more likely to act accordingly in various contexts. Perhaps not surprisingly, multiple studies across diverse societies have revealed that IA and violence among family members occur more frequently among those who hold attitudes that justify "wife beating" and violence more generally (e.g., Bueno and Henderson 2021, Murshid 2019, Reese et al. 2021). In fact, Waltermaurer's (2012) metanalytic review of studies evaluating public justifications for domestic violence failed to identify *any* countries with a "zero prevalence" of domestic violence justification, although the levels of support varied dramatically within and across many of the countries.

The key issue involves societal views about the acceptable use of aggression or even physical force. Many societies historically and in contemporary settings subscribe to a patriarchal ideology to varying degrees, as reflected in their values, beliefs, and norms that justify male dominance across social and political landscapes (Yllö and Straus 1990). The popular trope "might makes right" reflects a justificatory mechanism consistent with a patriarchal model of human society. In patriarchal social systems, people tend to condone the use of aggression as a form of empowerment and entitlement.

Lystad (1986) describes the "pecking order" of family violence as perpetrated by those with the most power and status upon those who have less of these resources. Additionally, the use of violence and coercive controlling behavior has been linked to hegemonic masculinity, such that men may internalize their abusive behavior as an expression of their "manhood" (Reidy et al. 2014). By the same token, parallel research demonstrates that women construct their own justificatory narratives, including excuses and self-blame, often in a manner consistent with their own understanding of hegemonic masculinity (Copes et al. 2021, Krause et al. 2016).

To conclude, societal contexts matter with respect to extant institutional arrangements, the ecological conditions that prevail, and in terms of setting the stage and scripts related to aggression and violence, especially from a comparative standpoint (and noting how societies have evolved historically). Societies vary in terms of levels of economic development and wealth distribution, degree of urbanization, poverty levels, their political systems, religious institutions, educational systems, and much more. The narratives constructed around their institutional configurations and cultural practices are essential too if we hope to understand each society's zeitgeist, their rituals and normative practices, and cultural interpretations of appropriate and inappropriate expressions of aggression. Hence the societal context framework highlights the importance of the following broad explanatory principles or macrosocial forces that must be considered:

- types and extensiveness of different types of social networks
- social organization of production and distribution
- formal institutional arrangements
- prevailing zeitgeists and cultural orientations
- range of narrative practices, mythologies, and justificatory ideologies

A great many different measures of societal conditions, then, must be factored into the discussion of aggression. The crucial aspects of the macrosocial forces include the institutional arrangements established for social life in general, such as the social organization of production and distribution. The issues then set the broadest stage for the possible emergence of IA and violence. Those societies, for example, where the division of labour has privileged males as producers *and* where marital living arrangements are predominantly patrilocal have higher rates of domestic violence targeting women in particular (Alesina et al. 2021).

The manner in which societies are organized and the prevailing macrosocial conditions can have profound effects that filter down to the level of individual beliefs and behaviors. Anthropological and sociological studies of IA and violence more generally reveal diverse practices and justification systems across cultures and epochs. What might be considered acceptable or even expected in some locations will be rejected completely as inappropriate or unacceptable elsewhere, which can be framed at the macro-societal level in terms of the overarching ideologies used to justify violence (Arosoaie 2017, Cousar et al. 2021). As an example, Baron et al. (1988) found that the level of social disorganization, urbanization, economic inequality, and the percent of single males helped shaped both people's views of "legitimate violence" *and* the incidence of rape across states in the United States, a process sometimes referred to as "cultural spillover theory."

The practices even *within* a given society may change over time or as quickly as within a generation or two. An excellent contemporary example involves corporal punishment and the physical discipline of children. Whereas corporal punishment was once condoned as a standard strategy for parents to maintain control of their children within the family (and even within most school systems), most forms of physical discipline used against children are no longer accepted and often tend to be criminalized.⁹ The relevant social forces must be identified to

⁹Even in recent national polls, such as a 2013 Harris poll, more than four in five U.S. adults agree that "spanking" is an "appropriate" form of discipline at least "sometimes" (see https://time.com/the-discipline-wars-2/). National Opinion Research Center data confirm that nearly 70% of the

explain why certain patterns of social interaction prevail, as well as why groups accept or eventually modify to varying degrees their existing practices.

Conclusions

Genuine explanatory progress requires more concerted efforts aimed at interdisciplinary cooperation with respect to understanding and explaining interpersonal aggression and violence. The argument advanced here springs from the premise that human beings everywhere are complex, adaptive actors who exist and operate in a multidimensional reality that includes physical, organic, mental, and sociocultural behaviors. The notion of the "normalcy" of aggression simply means that various forms appear wherever humans have lived, even though there may be considerable variation in the expression thereof or the extent to which violence might result.

A profound question then remains: What explains the emergence of IA, including the more severe forms that may escalate and boil over into actual violence? A great many theories have been proposed, mostly with a narrow focus on one main aspect of behavioral reality tied to a specific academic discipline. A potentially more powerful explanatory approach consists of studying the interrelationships among the different types and dimensions of the human condition that lead both to aggression and to emergent phenomena such as human justification systems that amplify or constrain violence.

The explanation of human aggression and family violence can be enriched by examining the many threads of research that deal with the human animal, socialization processes, justification systems, social fields, and institutional contexts within which individuals and families live out their lives. The generic ecological framework establishes a heuristic device for identifying the different levels where human social interactions occur, but does not independently specify the dynamic features that animate these interactions or generate the particular behavioral outcomes routinely observed. Hence the key analytic question remains: what are the defining aspects of interpersonal relationships situated within diverse ecological contexts that generate particular responses, such as aggression and violence? As proposed here, the answer requires some consideration of the multiple levels and dimensions of human exchanges, which include:

- 1. the functional capacities and behavioral investment strategies of the human animal, i.e., the decision-making processes and coordinated actions of the human animal
- 2. the socialization experiences and learning processes that facilitate human development and understanding across the lifespan

public in 2018 continue either to "strongly agree" or "agree" that "it is sometimes necessary to discipline a child with a good, hard spanking." Yet many countries around the world have banned corporal punishment, with Scotland becoming the first UK country to outlaw the practice entirely in 2019.

- 3. the development of and cultural exposure to the sociolinguistic communication systems that human beings eventually use to justify behaviors in their multiple fields of interaction
- 4. the social locations of individuals and the social fields that emerge in their immediate environments, animated by the social "forces" associated with the status differences of each actor involved
- 5. the institutional arrangements, sociohistorical contexts, and cultural zeitgeists within which individuals live out their lives as members of a particular community or society

To acquire the knowledge of these multiple dimensions of human existence, while a daunting proposition, would be the most comprehensive approach to understanding, explaining, and even predicting the likelihood or the increased *probability* of humans acting with aggression or directing violence against one another. No one should be surprised that few analysts within the social sciences have attempted to integrate the knowledge from across the many disciplines to achieve a more holistic accounting. Most researchers study one dimension of the human condition at a time—and usually specialize even more narrowly on certain features or subdimensions (e.g., the importance of substance abuse, previous exposure to violence in familial relationships, current measures of "stress" levels, the activation of specific hormones, etc.). To be fair, there are practical and funding constraints that limit what researchers can do for each specific project. From a theoretical perspective, however, we should be able to agree at this point that no discipline has cornered the intellectual market for explaining aggressive behavior.

Hence an integrated approach offers the opportunity to link five complementary theoretical branches that span the social sciences: behavioral investment, socialization, cultural justification, social location, and societal context frameworks. Each framework highlights distinct factors and mechanisms that, if combined into a coherent whole, can determine the probabilities of different behavioral outcomes in terms of IA and violence. Such an ambitious objective defies any simple solutions. Future success of scientific investigations in the field will stem not only from replicating past studies and verifying significant predictors, but from applying multi-level modelling techniques to evaluate their interaction effects in stimulating or deactivating the threat of interpersonal aggression. The future of the behavioral sciences belongs to those who are committed to genuinely interdisciplinary work, i.e., those who are prepared to deal with complexity and contingency in innovative and yet collaborative ways.

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