The Rabbit and the Mountain Lion: Anxiety and its Opposite

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Is it not intrinsic to the nature of the male, beasts as well as men, to fight and to contend? It's what we were born to do, it's in our blood.

—Steven Pressfield, Gates of Fire

The Question

What is the opposite of anxiety? The facile answer would be that calmness or tranquility is the opposite of anxiety. That answer is true in a sense, but calmness is mostly just the absence of anxiety. Some opposites are vacuous, merely absences; cold is technically just an absence of its opposite, heat. There is however another kind of opposite; a substantive opposite. For example the opposite of a friend is a foe. A foe is its own sort of entity, not just the absence of a friend. So what is the substantive opposite of anxiety, and what does it do? What does its existence imply for the practice of psychiatry and the study of psychology?

A starting point for finding the answer is to look more closely at what anxiety is. There are multiple ways to conceptualize anxiety, but for now consider the ethological paradigm in the study of fear and anxiety. This perspective contextualizes fear and anxiety as systems that humans and animals use to defend against threats (Mobbs et al, 2015, p. 1). In short, the answer to 'what is anxiety' is answered by shifting the question to 'why is anxiety.' Ethologically

speaking, anxiety is the physiological, cognitive, and behavioral state which in the past, has made humans and animals ready to deal with potential dangers in the future.

I say it made them ready in the *past*, to emphasize that the system called anxiety developed in environmental conditions which largely do not exist anymore for contemporary humans. This fact may explain much of the mismatch between the anxiety that many people experience and the high degree of safety in which those same people live. And though anxiety is adapted for the past, it is always *future* oriented. This is what distinguishes anxiety from fear. Fear is a more acute, intense, short lived reaction to a specific danger perceived in the present. Anxiety is a lingering anticipation of a possible danger which may or may not ever materialize (Mobbs, 2018, p. 35). Since anxiety is always future oriented, and in some sense the future never arrives, we can say that anxiety is a perpetually unsatisfied drive to avoid danger.

An Answer from Animal Models and Analogies

In the ethological perspective, avoiding danger is largely about avoiding predation (Mobbs et al 2015: 2), and also avoiding intraspecies aggression related to mating and territory competition. Thus fear and anxiety are studied through animal models, where prey mammal's "defensive survival circuits" are studied by placing them in environments seemingly vulnerable to predators (Mobbs, 2018; Choi et al, 2010). From these studies and others, various regions of the brain are implicated in fear. And overlapping but different regions are implicated in anxiety.

In contrast to fear, which has a specific object, and tends to pass quickly in absence of the threat, anxiety is a more long-lasting state of general apprehension. The amygdala is important in mediating both fear and anxiety (Davis et al, 2010). The primary difference in neural function between fear and anxiety is found in the periaqueductal gray (PAG) region of the midbrain.

Activity in the dorsal and lateral regions of the PAG are important in the fear response when a specific threat is detected. But PAG activity is not significant in anxiety (Deakin & Graeff, 1991; Graeff et al, 1993; Mobbs et al, 2007; Deng et al, 2016).

I will say a little more about the PAG's role in fear below. But for now, I want to focus on the general point that fear and anxiety are studied through animal models where prey mammals are vulnerable to predators. In this model of anxiety, a prey mammal (rodent) stands in for the anxious human.

With this in mind, let us return to the original question, what is the opposite of anxiety? Anxiety is embodied in the prey. So to find the opposite of anxiety, we should look to the opposite of prey: the predator. The opposite of anxiety is embodied by the predator. It is the physiological, cognitive, and behavioral state which in the past, has made humans and animals ready to be dangerous in the future. Anxiety is an unsatisfied drive to avoid danger. The opposite of anxiety is an unsatisfied drive to *be* danger. A person experiencing anxiety may be likened to a rabbit in a wide open clearing. The rabbit is driven to avoid danger, and so are humans. Thus the rabbit can serve as a plausible model of anxiety. But what would be the human analog of the mountain lion looking for the rabbit? The lion is a predator and so are humans. The lion is driven by its nature to be danger, and why would not humans be driven to be the same? It is easy to accept that prey mammals and humans share both gross neuroanatomy and a common need to avoid danger, and thus to draw analogies between the two. So it should be easy to accept that humans and predator mammals share both gross neuroanatomy and a common need to be dangerous, and thus to draw analogies between the two. If we take the avoidance states of prey mammals seriously as an analog of human affect, why would we not take pursuit states of predator mammals seriously as an analog of human affect?

There have been rodent studies which measured brain activity during hunting. Even the mouse—a prototypical prey animal—is a predator of insects. Inhibitory GABAergic neurons projecting from the lateral hypothalamus to the PAG regulate predatory behaviour (Li et al, 2018). Activating these inhibitory neurons immediately initiates chasing, catching, and biting. In contrast, activating excitatory neurons projecting from the lateral hypothalamus to the PAG immediately results in high-speed running and jumping (evasion behavior).

Actively hunting is the opposite of being actively fearful of a threat. Even on the neurological level, the activity is opposite: inhibitory input to the PAG corresponds to the former, and excitatory input to the PAG to the latter. So even on the neurological level of analysis, we can see that fear (heightened excitatory input to the PAG) has a vacuous opposite: low baseline input to the PAG. And fear has a substantive opposite: heightened inhibitory input to the PAG. But this paper is about anxiety and its opposite, not fear and its opposite. Anxiety is not analogous to the state of evasion from a specific detected danger; it is a more generalized preparedness for unspecified danger. So anxiety's substantive opposite would be a generalized preparedness to be dangerous toward an unspecified target. This has not been studied in any neurological detail like active predation has been. It would be more difficult for researchers to define and detect exactly when and to what extent an animal is ready for predation, but not yet fixating on or chasing any prey.

Of course anxiety and its opposite are not only about predation. Anxiety is a preparatory state for facing danger. Danger often comes from within the species as well as from without. We know that human anxiety more often relates to danger from other humans than to predators which might eat humans. And of course we might expect an animal to be in a state of anxiety when anticipating attack from a stronger animal of its own species. A small non-dominant

African lion would be anxious at the prospect of encountering a large dominant African lion. The lion seeking to prove his dominance will embody the opposite of anxiety: the drive to be dangerous (to be violent). Anxiety is preparation for danger from either predators or intraspecies rivals. The opposite of anxiety is preparation to be dangerous toward either prey or intraspecies rivals.

Naming a Feature of Human Nature

In the psychological literature, the instinct for humans to be dangerous is usually discussed in the vein of ‘fight or flight,’ which is entirely different from the instinct to which I am pointing. ‘Fight or flight’ is a fear response. The mountain lion is not fearful of the rabbit. The lion has a deep physiological and psychological drive to kill, and to perform the actions which precede a kill, and to perform the particular actions of the kill itself in an efficient, skillful way. Why does the lion have this deep physiological and psychological drive? Because it is a predator. Humans are predators. Humans (at least some portion of them) should be expected to have some analogous physiological and psychological drive.

What should we call this postulated drive to be dangerous? From the analogy so far, ‘bloodlust’ might seem appropriate. But in humans, the instinct would not be so simplistic and crude. The prey/predator dynamic is a nice simple place to start in an analysis of anxiety and its opposite; it reveals the logic of deep survival related drives. But the real human versions of these drives should be expected to be more complex. Human anxiety is not straightforwardly focussed on avoiding big cats. Actual predators rarely enter the cognition of anxious people today. Likewise, the human drive to be dangerous would not typically manifest as unvarnished bloodlust, even though that is the easiest form of it to observe in animals. There does not seem to

be a standalone word in today's common parlance nor in the psychological jargon which connotes a drive to be dangerous which is somewhat more flexible, nuanced, and tempered than 'bloodlust.'

A new term is needed in the psychology lexicon. But rather than contrive a neologism out of whole cloth, I propose appropriating an old word for a new connotation. *Andreia*, from the ancient Greek *ανδρεία*, first appears in the 467 BC play by Aeschylus, *Seven Against Thebes*. In the play, a messenger describes the fighting spirit of the seven Argive warriors:

Their thumos (spirit), iron-hearted and burning with *andreia*,
Breathes war like lions with blazing eyes. (Bassi, 2003, p. 38)

This early usage of the word *andreia* provides a perfect touchpoint on which to build a new psychological connotation. *Andreia* refers to a desire to fight; a desire exemplified in lions ready to do battle. The word clearly refers not to the physical actions of fighting, but to the mental state which drives and readies one to fight. *Andreia* describes the 'spirit,' the inner self; not the motions of the external body. Thus *andreia* precedes physical action which has yet to be worked out in its actualized particulars. It is symmetric in this way with anxiety, which also precedes and prepares for unspecified physical action. So now we have a name to use. The opposite of anxiety is *andreia*. *Andreia* is an unsatisfied physiological and cognitive drive to be dangerous.

Of course the idea that humans have an inherent drive for violence is not new. It has been proposed and also disputed many times; for thousands of years even. But over the years, it has not had a consistent name, nor has it been appreciated and integrated into the current fields of psychiatry and clinical psychology. Such an appreciation and integration of *andreia* into

psychology and psychiatry seems quite overdue, considering how long the concept has languished in namelessness. A brief history would include its role as part of the Christian doctrine of innate sinfulness.

For from within, out of the heart of men, proceed evil thoughts, adulteries, fornications, murders... These evil things come from within. (King James Bible, 1769/2017, Mark 7:21-23)

This passage emphasizes that the drive to murder comes from within the individual, rather than from circumstance or environment. Interestingly, the drive to be violent is grouped with the highly biological drive for sexual gratification. So clearly the notion of natural, normal, inborn violent tendencies existed long before the modern scientific study of mind and behavior. With this idea infused in Western culture as religious doctrine, perhaps the early attempts to scientize psychology reacted against the doctrine as antithetical to the rationalist humanist project.

Sigmund Freud originally made no room for anything resembling a natural drive toward violence. However, near the end of his life, Freud's cumulative observations led him to a reluctant conclusion, which contradicted his previous theorizing. Because of "the ubiquity of non-erotic aggressivity and destructiveness," Freud adopted "the standpoint, therefore, that the inclination to aggression is an original, self-subsisting instinctual disposition in man" (Freud, 1930, pp. 120-122). Through the 20th century, the idea of a natural drive toward violence emerged a few more times from various perspectives. In the 1950s, anthropologist Raymond Dart inferred from his impression of fossil records: "The loathsome cruelty of mankind to man is explicable only in terms of man's carnivorous and cannibalistic origin" (Dart, 1953, p. 209).

Sherwood Washburn and Virginia Avis expressed a similar belief a few years later. “Man takes pleasure in hunting other animals... men enjoy the chase and the kill... Carnivorous curiosity and aggression have been added to the inquisitiveness and dominance striving of the ape” (Washburn & Avis, 1958, pp. 433-434). Washburn and Chet Lancaster went on to connect the ancient aggressive instinct to the modern popularity of hunting sports. “Men enjoy hunting and killing, and these activities are continued in sports even when they are no longer economically necessary” (Washburn & Lancaster, 1968, p. 299).

The claim that there is real widespread inborn motivation for violence has been put forward many times. In this paper, rather than argue that basic claim again, the concept will be elaborated in a direction which can inform psychiatry. The point of this paper is not just to restate that humans naturally tend to be violent. The point is to consider the phenomenology of that tendency. What is it like to experience the motivation and readiness to do violence (andreia)? What happens when that motivation and readiness remain unfulfilled? How does our current society and its psychiatry address andreia? Are there misapprehensions, and if so, what are their consequences? Understanding andreia as the opposite of anxiety helps answer these questions, by giving us a reference point for comparison and contrast.

Andreia in Contemporary Society

Despite the numerous historical forerunners of the concept of andreia, It has on balance been unseen, misunderstood, or ignored in western psychology, which is why it has remained unnamed. For example, Maslow's ‘hierarchy of needs’ clearly acknowledges the human need for safety, but not a need to be dangerous (Maslow, 1943). Since violence is mostly undesirable within the social order, psychological theorizing tends to approach the topic of violence by

implicitly asking what has gone wrong. Psychologists seek to find what has caused a diversion from the 'normal' state of non-violence. For example, one current theory of violence, the 'bio-psycho-social' model put forth by Adrian Raine, makes much of impaired 'impulse control' as a cause of violence (Raine, 2014, p. 269). But the theory so far has scant to say about what the 'impulse' in 'impulse control' is, what it does, why it does what it does, or what happens when it is 'controlled.' That is, how does this 'impulse' manifest itself in relatively normal (non-criminal) individuals who are by definition not included in most violence research? The concept of *andreaia* proposed in this paper does yield answers to such questions.

What does *andreaia* look like in a normal resident of a wealthy Western country today? Individual people have deep drives to be dangerous. But societies have strong norms and rules against violence. These societal norms include at least two important restrictions. First, do not be violent. Second, do not *want* to be violent. By many cultural standards, an individual who explicitly wants to be violent is seen as weird, unhealthy, pathological, and unfit for high social status. So the individual experiencing *andreaia* in such a society is likely to 1. have few avenues available in which he might act out his *andreaia*, and 2. lack the semantics to conceptualize or even recognize his *andreaia* for what it is: a drive to do violence.

When *andreaia* is denied by lack of opportunity or lack of recognition, a sense of restlessness, dissatisfaction, and anger sets in. Physical symptoms such as headaches and fatigue should also be expected. The source of these affective and physiological states is obscured because current societal values and norms insist that we are not supposed to seek violence, and that we are not supposed to want to seek violence. If a person is unsatisfied with his safety, he can easily point out why he is unhappy. Society confirms that he *should* pursue personal safety. If a person is unsatisfied with his sexual opportunities, he can easily point out why he is unhappy.

Society confirms that he *should* pursue sexual gratification, with stipulations regarding consent. If a person is unsatisfied with his opportunities to be dangerous, he cannot point out why he is unhappy. Society denies that he *should* be dangerous, or that he lacks anything while living in total safety and nonaggression.

There are socially sanctioned forms of violence which one could pursue, but apologists for these must go to great rhetorical lengths to construe the activities as something other than opportunities for violence. Hunting is said to be “harvesting” rather than “killing” (Wheeler 2012). And the purposes of hunting are said to be such abstract things as “experiencing nature, and acknowledging our kinship with wildlife” (Dizard 2014, p. 19). Combat sports are said to be “competitive,” and specifically not “violent” (Wyman 2016). The desire to do violence is generally not explicated as a reason that many people may join the military. The model of enlistment motivation dominant in academic research focuses on “occupational” and “institutional” motivations such as money, job training, dignity, and a desire to serve one’s country (Eighmey, 2006; Taylor et al, 2015). Violence is not seen as a legitimate pursuit, yet governments maintain professions of violence. The official purpose of a US Marine infantryman is to “locate, close with and destroy the enemy by fire and maneuver or to repel the enemy’s assault by fire and close combat,” that is, to kill people (US Marine Corps, 2020). In many other professions, we take it as a given that the core function of the job itself is attractive to those who choose the profession. Why does one become a doctor? “I wanted to help people regain their health.” Why does one become an engineer? “I’ve always enjoyed solving problems and making things.” Why does one become an infantryman or member of special operations forces? “I want to kill enemies with a rifle.” This last answer seems odd and concerning in the milieu of contemporary society. But our deep psychological drives such as anxiety and *andreaia* were not

made for contemporary society. From that mismatch, follow contradictions within society and within the individual.

Our deep psychological drives maintain combat sports (beating another human to unconsciousness) and hunting (paying to kill animals which may or may not be eaten) as popular activities and industries. Societal norms compel absurd obfuscations of the nature of these activities. All of the following actions are permitted with certain license: sending a bullet tearing through the body of an elephant; kicking a man in the head until brain trauma renders him unconscious; shooting a man in the head. What seems not to be permitted is to *want* to do any of these permitted actions without layers of (usually incoherent) abstract justifications.

And so a person with a deep need to be dangerous may not understand what is lacking in his life; he may not know that he should pursue legal violence. The failure to recognize and properly channel *andreaia* could result in two undesirable outcomes. 1. He may victimize others through antisocial violence. 2. he may live in a chronic state of restlessness, irritability, fatigue, and general dissatisfaction. Anxiety is maladaptive when there is no real danger, or when there is no feasible course of action which could reduce the level of danger any further. *Andreaia* is maladaptive when a Hobbesian leviathan (the state, society, and other controls on the individual by the collective) forbids most violence. So in the present, both anxiety and *andreaia* are mismatched to the environment where many of us live.

Returning to the metaphor of the rabbit and the mountain lion, our current social environment puts both animals in a zoo. In the rabbit enclosure, there are no predators, but the rabbit still has the anxiety which would help protect it if there were predators. In the mountain lion enclosure, there are no prey, but the lion still has the *andreaia* which would drive it to kill. In the zoo, the lion is fed more than it ever would have eaten in the wild. But something of the

lion's existence is impoverished. Something remains unsatisfied in the lion, regardless of the food it is given. The lion has a drive which remains unfulfilled.

Much like the lion and the rabbit, the typical person experiencing *andreaia* in this zoo-like environment undergoes physiological priming for action which never comes. Unfulfilled physiological preparedness for action, from both anxiety and *andreaia*, produce some sensations in common, though they stem from opposite purposes. Both states devote bodily resources to their respective tasks. Escaping violence and being violent require basically the same bodily resources. Breathing and heart rates increase to provide oxygen. Blood is diverted to the major muscle groups, which tense. After prolonged time in the physiologically ready state, fatigue sets in, but sleep is elusive. The simultaneously fatigued and aroused physiology translates to behavioral irritability and a subjective sense of restlessness. So the drive to be dangerous, when unfulfilled, should be expected to produce basically the same physiological symptoms as its opposite: anxiety, the drive to avoid danger.

Andreaia and Psychiatry

It is not hard to imagine that this physiological, psychological, and behavioral state of unfulfilled *andreaia* could cause disturbances in life. Suppose a person in this state finds himself in the care of a clinical psychologist or psychiatrist. The practitioner may initially interpret the subject's symptoms as a preliminary indication of an anxiety disorder. The only missing piece would be the cognition of worrying. So the practitioner may probe with questions to see if such cognition is present. However, everyone worries about some things to some extent. So the practitioner will inevitably uncover at least some worry which could be seen as associated with the physiological symptoms. In order to meet the criteria in the *Diagnostic and Statistical*

Manual of Mental Disorders for generalized anxiety disorder, the worry merely has to happen more days than not (5th ed.; DSM–5; American Psychiatric Association, 2013, p. 222). Many people worry about *something* at least once on most days, so most people do worry more days than not. But is the worry “excessive?” It very well may be judged to be excessive, due to its “association” with the physical symptoms. And so a patient who actually suffers from the opposite of anxiety may easily be diagnosed with generalized anxiety disorder.

And if this misdiagnosis *can* happen, it is *likely* to happen, given that clinical psychology has no concept of anxiety’s opposite, and thus no possibility of correct diagnosis (assuming the theory in this paper so far is correct) With no possibility of correct diagnosis, misdiagnosis is almost inevitable. This likely error is important because andrea-related disorders would likely be treatable by very different interventions than those used to treat anxiety disorders. The reason for this has to do with teleology.

Anxiety is a drive to prevent a potential event or action. If anxiety achieves its goal, nothing happens. In contrast, andrea is a drive to act. If andrea achieves its goal, an action or event comes to be. So in the case of excessive anxiety, there is no conceptual limit or signal which would tell the anxious subject to stop being anxious. There is no negative feedback. If nothing happens, that does not mean nothing is about to happen. The non-event never registers as coming to be, since in a sense, it never does. This is why treatment of generalized anxiety disorder does not include acting in accordance with the anxiety. Cognitive behavioral therapy does not recommend to the anxious patient that she should check *more* frequently on her safety. It can never be enough because safety is a non-event which never registers as having occurred. So anxiety must instead be dissipated by denying it in certain ways, not by affirming it.

But in the case of andreaia, there can be negative feedback when an act of violence is achieved. It is a detectable positive event, which conceptually allows for a sense of satisfaction when actualized. So intrusive affective disturbance which results from andreaia could be alleviated through periodic legal acts of violence. Acting in accordance with andreaia in sanctioned times and places may be enough to reduce the urge and its related disturbances to the subject's life in contemporary zoo-society. Anecdotally, this seems to be the case. Ultimate Fighting Championship middleweight, Sean Strickland stated in an interview:

Violence? It's in my soul. I don't want to sound too cryptic, but if it wasn't for MMA, I'd probably be in prison. There's some urge in me, there's some voice in me that finds so much enjoyment in hurting people. I need it. If not, I'd probably do drugs. I don't do drugs. I don't smoke or drink. But if it wasn't for MMA, I'd really have to medicate myself to function. The problem is, I'm so violent, if I started drinking, it might just come out more often. (Iole, 2021).

Perhaps many others with high levels of andreaia should also be regularly practicing legal violence in order to prevent harmful illegal violence and maintain normal functioning. Of course this is a radical suggestion, which demands extensive empirical testing. Violence is undesirable for obvious reasons, so suggesting that violence could be good and helpful in some ways will be met with resistance. If legal violence is to be recommended for the mental health of some people, one might wonder if there are safer ways to achieve the same thing. After all, violence can be simulated, and it is in fact simulated on a massive scale. Of the top 20 best-selling video games from 2010 to 2019, 15 share the primary goal of inflicting violence upon realistically rendered characters. Examples include *Call of Duty: Modern Warfare*, *Grand Theft Auto V*, and *Battlefield 4* (Kain, 2020). Tens of millions of people (especially young males) spend hours every day

playing such games (NPD, 2020; Limelight, 2021, p. 5). There must be some psychological mechanism which makes these games so attractive that so many would voluntarily spend so much time playing them. That psychological mechanism could certainly be the *andreaia* described in this paper. And if to play violent video games is to act in accordance with *andreaia*, then it might seem that video games could serve as a mostly harmless fulfillment of *andreaia*, alleviating disturbances to normal life caused by unfulfilled *andreaia*.

But this is likely a false hope. *Andreaia* is a drive and readiness for physical action, likely underpinned by neuroanatomy shared by lower mammals. Upon actually taking action, there is negative feedback which tells the organism that its action has been achieved. That feedback system should be expected to take its input from somatic senses and bodily states associated with having taken intense physical action. Such physical action never occurs in playing video games. There is visual and conceptual feedback in video games that tells the player he has achieved skillful violence. But that modality of feedback must be mismatched or at least incomplete. Video games do not offer the physical feedback which would alleviate the urge to play them. Video games, at least in their current form, are not a promising arena for fulfillment of *andreaia*. As an empty promise of fulfillment, video games may be used as a poor substitute for more fulfilling activities, thus making true fulfillment less likely, and exacerbating the disturbing restlessness associated with unfulfilled *andreaia*.

The problem of unfulfilled *andreaia* can also be seen in those who at one time had a significant venue for fulfillment, but abruptly lost that venue. Bartley Christopher Frueh and colleagues conducted consultations with over 50 special operations forces operators transitioning to civilian life. The researchers documented a constellation of problems common to the elite military population as they leave service.

SOF operators now face a cascade of medical, emotional, and social problems that are not adequately captured by psychiatric diagnoses of depression or PTSD as they transition to civilian life... Life outside the military is typically more mundane and lacks the stimulus value of life-and-death situations... Most operators struggle—at least for a while—to develop satisfying postmilitary career pathways for themselves. (Frueh et al, 2020)

Frueh et al do not directly state that the veterans need to be dangerous in order to be satisfied. There is much room for further examination of the “stimulus value” which they see as lacking in post-military life. Ernest Hemingway was more specific in his concise 1936 assessment: “Certainly there is no hunting like the hunting of man and those who have hunted armed men long enough and liked it, never really care for anything else thereafter” (Hemingway, 1936/2021) Never really caring for anything else could be a fair description of the adjustment disorders faced by many veterans. Without consideration of *andreia*, clinicians may not fully understand veterans.

Caveats

To some it may seem that there is already a construct—aggression—studied by psychologists which encapsulates what I call *andreia*. But this is not the case. Aggression is defined by social psychologists as behavior that is intended to harm another individual who does not wish to be harmed (Baron & Richardson, 1994; Jhangiani & Tarry, 2014). For the purpose of differentiating aggression from *andreia*, the most important thing to notice is that aggression as studied by psychologists is behavior. In contrast, *andreia* is not behavior; it is cognitive, physiological, and motivational preparedness for behavior. Moreover, the current taxonomy of aggression defines two categories: emotional aggression, and instrumental aggression (Jhangiani

& Tarry, 2014). Emotional aggression is said to be caused by extreme negative emotions, especially anger. In contrast, *andreia* often involves no extreme negative emotion at all. Consider a typical bear hunter; he is certainly not *angry* at the bear while stalking or shooting it. So the behavior which follows from *andreia* cannot fit into the category of emotional aggression. Nor does it fit the other category of aggression. Instrumental aggression is said to only occur in order for the aggressor to gain something—attention, monetary reward, or political power, for instance (Jhangiani & Tarry, 2014). This does not at all describe the actions which follow from *andreia*.

So the aggression construct studied by psychologists is not similar to the concept of *andreia* put forth in this paper. But this is not an attack on the aggression construct. This paper is absolutely not intended to explain all violence, or all contact sports, or all hunting behavior, or all veteran's adjustment issues, or all of anything. The concept of *andreia* can partially explain some behavior, just like the concept of anxiety can partially explain some behavior. An individual who experiences *andreia* at times may very well experience anxiety at other times. At yet other times, he may experience the 'fight or flight' response. He may engage in emotional or instrumental aggression for reasons which may or may not interact with his states of *andreia*. He also may or may not lack impulse control. All of these factors and many others in complex interaction result in the actual behavior of people. *Andreia* is just one piece of many which together form our best attempt at describing the human psyche.

Summary and Conclusion

The ethological paradigm is an informative and influential perspective on anxiety. But if the reasoning beneath that paradigm is valid, then something is missing. Humans are said to have anxiety because of the need to avoid dangerous attacks in the environment. But humans also

have (or had) the need to regularly carry out dangerous attacks on others in the environment. If humans have a generalized preparatory state which basically readies them to be attacked (anxiety), then we should expect humans to also have a generalized preparatory state which basically readies them to attack (andreia). Both being attacked and initiating an attack can involve extreme physical exertion. So anxiety and andreia both entail physiological changes which may result in noticeable physical symptoms such as tachycardia, muscle tension, shaking, headache, difficulty sleeping, and general restlessness. If such symptoms of andreia lead a patient to seek psychiatric or psychological treatment, it is possible that the physical symptoms in combination with a normal amount of worry could lead to a misdiagnosis of andreia as its opposite: generalized anxiety. Andreia is not found in the *Diagnostic and Statistical Manual of Mental Disorders*, nor is there any concept of the opposite of anxiety taught to psychology and psychiatry students. This makes the true diagnosis impossible, and thus makes misdiagnosis quite likely.

It is important to accurately identify andreia and anxiety because they are likely to be best ameliorated by opposite behavioral strategies. In the case of excessive anxiety, there is no conceptual limit or signal which would tell the anxious subject to stop being anxious. There is no negative feedback. If nothing happens (safety), that does not mean nothing is about to happen. The non-event never registers as coming to be, since in a sense, it never does. This is why treatment for generalized anxiety disorder does not include acting in accordance with the anxiety. Cognitive behavioral therapy does not recommend to the anxious patient that she should check *more* frequently on her safety. It can never be enough because safety is a non-event which never registers as having occurred. So anxiety must instead be dissipated by denying it in certain ways, not by affirming it. But in the case of andreia, there can be negative feedback when an act of

violence is achieved. It is a detectable event, which allows for a sense of satisfaction when actualized. So intrusive affective and physical andreaia symptoms could be alleviated through periodic legal acts of violence. Acting in accordance with andreaia could improve the subject's functioning, unlike acting in accordance with anxiety. When venues for acting out andreaia are lost, or when they are never presented as a worthwhile pursuit in the first place, poor outcomes should be expected for some people.

These conclusions are all theoretical, and thus call for empirical testing. Empirical work could proceed from multiple angles. Neuroscientists could characterize the brain activation pattern in predators in search of prey (before detection of a specific target). If that brain activation pattern is opposite in some substantive way from the brain function of anxious prey animals, that would be evidence in support of the notion of andreaia as the opposite of anxiety. Psychologists could use self-report experience sampling research designs to investigate the emotional, cognitive, and physical states of subjects in a time series preceding and following activities such as hunting, combat sports, etc. Such studies could answer questions such as: Is there a cyclic pattern of restlessness and satisfaction which coincides with the preparation, participation, completion, and abeyance of legal acts of violence? There are many avenues for creative empirical work which might confirm, disprove, or elaborate the concept of andreaia. Such work could lead to significant improvement in certain clinical practices.

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