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Predatory Personalities as Behavioral Mimics and Parasites: Mimicry–Deception Theory

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Abstract

Humans use a variety of deceptive tactics to extract resources from unsuspecting others. In this article, I suggest that much can be learned about patterns of human deception from predatory nonhuman animal behavior and parasitic infections. Nonhuman animals and parasitic infections utilize deceptive tactics to extract resources through two overarching strategies: (a) complex deception, slow resource extraction, heavy integration into a host or community, and low risk of detection, or (b) superficial deception, immediate resource extraction, little host or community specificity, and increased risk of detection. Predatory and parasitic human personalities may operate in analogous ways. Guided by analogies derived from nonhuman animal mimicry (such as color or behavioral deception) and micro-organismic infections, I have developed a theoretical framework to better understand deceptive and parasitic human behaviors as well as the characteristics defining them. Although applicable to areas of predatory and parasitic human behavior, two specific traits (psychopathy and Machiavellianism) are highlighted that have dire consequences for financial fraud, interpersonal harm, and organizational misbehavior.

Keywords

predatory behavior, fraud, Machiavellianism, psychopathy, white-collar crime

The willingness and ability to deceive others for selfish gain is an ever-growing problem in the modern world, especially with respect to financial behavior. Predatory and parasitic financial behaviors threaten cooperative communities worldwide. There are also similar patterns of deception across long- versus short-term behaviors in parasitic micro-organisms as well as predatory nonhuman mimics and humans. For example, a *nonhuman animal mimic* is defined as an organism that, through various means of deception (e.g., behavioral, visual, and chemical), appears to possess certain characteristics but actually possesses different characteristics (Holling, 1965). A *predatory mimic* (or *Mertensian mimic*) is a nonhuman animal that uses such confusion for hunting prey (Wickler, 1968). A common example is the evolved similarity among the coral snake and two other snakes: the kingsnake and the milk snake. Despite their similar appearance, the coral snake is venomous, whereas the milk snake and the kingsnake are not. However, the confusion among these types of snakes benefits all of them (Gilpin, 1975). Similarly, infection-producing, parasitic micro-organisms use deception to gain an evolutionary advantage. For example, the human immunodeficiency virus (HIV) confuses a host's immune system by hiding within naturally occurring cells.

Predatory and parasitic deceptive behaviors are not limited to nonhuman animals and micro-organisms; they are also pervasive in modern human society (Gambetta, 2005). Parasitic and predatory human financial deception spans from simple and immediate forms of fraud, such as credit card fraud or identity theft (Pratkanis & Shadel, 2005), to elaborate and long-term white-collar crimes (WCCs), such as embezzlement or antitrust violations (Benson & Simpson, 2009). There are striking similarities in the long- versus short-term deceptive approaches that micro-organisms, nonhuman animals, and humans take. In fact, there are four common

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Table 1. Examples of the Four Components of Mimicry–Deception Theory (MDT) Across Long- Versus Short-Term Orientation

MDT: Long-term	Complex deception	Slow extraction rate	Host integration	Low detection risk
Micro-organisms: HIV, meningitis	Hides as naturally occurring cells	Coexists within immune cells or central nervous system	Tailors the infection to individual host; hard to pass on	Immune system unaware until it is too late
Nonhuman animal: Jumping spider	Behavioral and chemical mimicry	Coexists with ants, feeding on them occasionally	Lives with one specific community of ants	Ants treat the spider as one of their own
Human financial: Embezzlement; antitrust violation	Utilizes access and reputation for crime	Financial extraction often within balanced books	Specific to one business/ organization	Takes complex accounting algorithms to detect
MDT: Short-term	**Superficial deception**	**Immediate extraction**	**No host integration**	**High detection risk**
Micro-organisms: flu; strep throat	T cells temporarily unaware or overwhelmed	Spreads rapidly through the host	Easy infection pathways; nonspecific to hosts	Immediate alarms raised by T-cell detection
Nonhuman animal: Coral snake	Visual coloring/ temporary confusion	Does not have a sustainable food source	Spans many territories for hunting	Bright snake coloring in general is avoided
Human financial: Credit card fraud; advance swindle fees	Legitimate sounding sales pitch or phone call	Bank accounts are emptied; all possible money taken	Contacts numerous potential victims (e.g., spam)	Suspiciousness over phone calls and e-mail offers

elements of deception that differentiate long- versus short-term forms of deception: mimicry complexity, resource extraction rate, host integration, and risk of detection. Long-term mimics use complex deception, engage in slow resource extraction, integrate into host communities, and have low risk of detection. On the other hand, short-term mimics use superficial deception, extract all possible resources at once, span multiple communities without much integration, and are at high risk of detection. These four characteristics form the basis of *mimicry–deception theory* (*MDT*), which is a theoretical approach designed to identify patterns of deception across a long- versus short-term continuum. Identifying reliable patterns of long- versus short-term deception has important implications for understanding deception in modern business and society. However, to date, the psychological literature lacks a cohesive theoretical approach to understanding dispositional predatory human behavior, especially when it comes to long- versus short-term temporal focus.

The Defining Features of MDT

There are four basic components to MDT that vary across long- versus short-term forms of deception (see Table 1). I describe each MDT feature separately, starting with the long- versus short-term micro-organism examples, followed by the long- versus short-term nonhuman animal examples, and then the long- versus short-term human examples in which financial misbehavior is the focus.

Complexity of deception

In micro-organisms, some infections—such as HIV (which attacks the human immune system) or meningitis (which attacks the central nervous system)—use complex forms of cell mimicry (Damian, 1964). This complexity is reflected in how difficult it is to transfer to a new community of cells (e.g., requiring the exchange of blood). Often, these complex parasites will manipulate the host to provide a sustainable environment (Lefèvre et al., 2008). By contrast, short-term micro-organisms infect a broad range of hosts indiscriminately through simple pathways (e.g., droplet infection through nasopharyngeal passages). These simple infection pathways require a temporary lack of T-cell detection from the host's immune system (Levin & Bull, 1994; see also Coccia et al., 2004). Examples of such viral infections are *Streptococcus pneumonia* (commonly referred to as "pneumonia") and *Haemophilus influenza* (commonly referred to as "the flu").

A similar long- versus short-term distinction in mimicry complexity occurs in nonhuman animals. An example of long-term mimicry complexity is the Australian jumping spider (*Aelurillus m-nigrum*; see Jackson & Pollard, 1996). This spider integrates into prey communities through sophisticated means of behavioral and chemical deception (e.g., Dettner & Liepert, 1994; Lenoir, D'Ettorre, Errard, & Hefetz, 2001). Cushing (2012) noted that such complex mimicry is difficult to execute but provides the spiders with access to a food source: the ants with which they coexist (Rix, 1999). By contrast, Short-term mimicry involves superficial (e.g., visual) deception. For example,

coral snakes mimic the prototypical color or appearance of an innocuous conspecific to create a moment's confusion, which provides a competitive short-term predatory advantage (Malcolm, 1990; Matthews, 1977; Pfenning, Harcombe, & Pfenning, 2001; Speed, 1993).

Similar to micro-organisms and nonhuman animals, complex mimicry stemming from long-term deception also occurs in humans, especially with respect to financial misbehaviors. For example, traditional forms of WCC often straddle a line between unethical and criminal (Laczniak & Inderrieden, 1987). Moreover, crimes such as embezzlement or antitrust violations are complex in nature, requiring strategic planning (Benson & Simpson, 2009). To successfully commit such crimes, one must present a consistent veneer of legitimacy. For example, one must build trust, confidence, and a good reputation to gain access to resources (Benson & Simpson, 2009). By contrast, short-term deceptive practices involve simple deception. In the financial realm, crimes (e.g., "con games") such as credit card fraud or advance fee swindles take only moments to commit (Benson & Simpson, 2009, p. 10). Such superficial deception takes the form of professional sounding messages, e-mails, business pitches, or appeals to authority (see Pratkanis & Shadel, 2005) to temporarily confuse individuals. Pratkanis and Shadel (2005) noted that such individuals may even appear empathetic and charitable, as though they are collecting money for a good cause.

Resource extraction rate

In micro-organisms, long-term parasitic infections often do not extract all possible resources at once. These infections might hide within naturally occurring cells (Levin & Bull, 1994) or change the ecology of their host to extract resources sustainably or over time (Lefèvre et al., 2008). By contrast, short-term infections attack cells quickly to extract all resources immediately (e.g., Lefèvre et al., 2008). Similar to micro-organisms, there is slow resource extraction rate among long-term nonhuman animal mimics. For example, the aforementioned Australian spiders do not extract all possible resources at once. Instead, they coexist among their prey (Cushing, 2012). This coexistence and slow resource extraction results in a never-ending food source for the spider, and (ironically) the spider enjoys the protection of the ant colony on which it feasts (Castanho & Oliveira, 1997). The coral snake, however, extracts all possible resources at once. In fact, organisms that have previous exposure to coral-snake environments will avoid coral snakes and the harmless milk snakes and kingsnakes (Greene & McDiarmid, 1981; Pfenning et al., 2001).

Long-term human deception, such as WCC behaviors, also has slow resource extraction rates similar to long-term micro-organisms or nonhuman animals. These financial deceptions, such as embezzlement or antitrust violations, usually result in resource extraction over time. For example, Bernie Madoff's Ponzi scheme was suspected to have started in the 1970s and lasted more than 20 years. Often, Madoff would refuse clients (to build legitimacy) or provide "returns" (i.e., other people's money) to investors to gain new investors (Avredlund, 2009; Loughran & McDonald, 2011). By contrast, one-shot con games rely on superficial deception that involves extracting all possible resources, and clients usually never see or hear from the perpetrator again (Pratkanis & Shadel, 2005).

Host integration

In micro-organisms, long-term parasitic infections, such as HIV, integrate into a host's community of cells. By contrast, short-term parasitic infections do not integrate heavily themselves into a host but rather multiply rapidly and spread across numerous communities (Levin & Bull, 1994). There is a similar pattern of community integration found in nonhuman animals. For example, long-term mimics integrate themselves into host communities (Cushing, 2012), whereas short-term (i.e., aggressive) mimics do not (Pasteur, 1982). Much like long-term micro-organisms and nonhuman animals, long-term deception in humans often requires deep integration into a host community (such as a financial industry) to cultivate trust and perhaps to gain access to financial accounts (Loughran & McDonald, 2011). For example, affinity fraud requires thorough community integration, which would allow the fraudster access to funds (e.g., Babiak & Hare, 2006, p. 86). In long-term financial deception, it is critical to integrate oneself in such a way that garners trust and familiarity (Benson & Simpson, 2009). In fact, many successful long-term financial deceivers were also advisors to government boards and were well respected in the financial community (Collins, 2011). By contrast, short-term financial deception usually involves little time spent with a particular victim and a large-scale approach to finding victims (e.g., such as "spamming"; see Edelson, 2003).

Detection

Micro-organisms that cause long-term parasitic infections, such as HIV, are not readily detectable within the host community of cells. The complexity of deception, host integration, and slow resource extraction rate make it extremely difficult for the immune system to detect. By contrast, the T-cell detection in healthy adults flags simple parasitic deceptions quickly, raising immediate alarms (Coccia et al., 2004). In nonhuman animals, complex

mimicry often fails, and attempts at slow resource extraction often fail, but when it is successful, it is near impossible to detect (Cushing, 2012). By contrast, animals with previous exposure or observation of short-term mimics will avoid any organism remotely similar to the predator (Greene & McDiarmid, 1981; Pfenning et al., 2001). Finally, the same low detection rates are found in long-term financial deceptions in humans. For example, sophisticated Ponzi schemes or WCCs sometimes take decades to discover and prosecute. Not only are the detection and arrest rates extremely poor for these kind of crimes but they are rarely prosecuted, and punishments are often small (Ivancevich, Duening, Gilbert, & Konopaske, 2003). By contrast, spammers are fairly easy to spot by most individuals and have a high rejection rate (Edelson, 2003).

Final Synthesis and Conclusion

Financial fraud costs approximately 680 billion dollars annually (Wells, 2007). It is critical to develop ways in which to estimate, predict, explain, and control these behaviors from a theoretical perspective. Parallels extracted from micro-organism, nonhuman animal, and human financial literatures suggest that there exists a long- to short-term continuum of cohesive characteristics defining predatory and parasitic deception. MDT stands to potentially improve debates across predatory, parasitic, and deceptive personality traits in psychology. By providing a theoretical framework with which to define the boundaries and expectations of these predatory and parasitic traits, construct definitions can be more clearly defined. In addition, MDT can be assessed on a continuum providing flexibility. Finally, using MDT, researchers may be able to capture nuances in dispositional human deception that fall between the cracks of previously defined psychological traits. Thus, MDT may be helpful not only in further understanding the differences among predatory personality traits, such as Machiavellianism and psychopathy, but in understanding human deception (especially financial deception) more broadly.

In fact, a trio of predatory personality traits (narcissism, psychopathy, and Machiavellianism) have been identified (Paulhus & Williams, 2002). Machiavellianism, for example, was originally conceptualized as a trait associated with amorality, manipulation, and a cynical worldview (Christie & Geis, 1970). Such individuals are opportunistic and strategically manipulative (Jones & Paulhus, 2009). In comparison, psychopathy was originally conceptualized through high levels of manipulation, callousness, impulsivity, and antisocial behavior (e.g., Cleckley, 1976). Such individuals are recklessly antisocial and dishonest (Hare, 2003). Although both traits are associated with callousness and manipulation (Jones & Figueredo, 2013), they are differentiated by their long- versus short-term strategies, respectively[1] (Jones & Paulhus, 2011a). However, trait approaches can be limiting. Thus, an alternative to assessing specific traits is to investigate the associated processes inherent in different temporal strategies, which may provide a better understanding of predatory deception. Thus, by examining theoretical long- versus short-term differences in deception, and the associated characteristics, MDT may help to provide a greater understanding of human deception.

In sum, MDT has the following advantages and contributions above and beyond standard trait approaches to deception: (a) MDT is not constrained by trait definitions or construct overlap, (b) MDT generates clear hypotheses about individual differences associated with deceptive patterns of behavior specific to long- versus short-term deceptive strategies, and (c) MDT may help to define and redefine characteristics or traits associated with dispositional long- versus short-term deception. On the basis of discussions pertaining to the nuanced approaches of interpersonal deception spanning this long- to short-term continuum, MDT should serve as a starting point on which to build. In sum, the fundamental premise of MDT is that human deceptive strategies have four key characteristics that vary across a broad temporal continuum.

Future Directions

Future researchers may wish to extend the MDT analogy of parasitic infection by examining previous exposure or inoculation to predatory or parasitic personalities. For example, just as antibodies prevent infection or reinfection, individuals might build "social antibodies" against financial deception (Scott, 2003). Another interesting direction would be to examine one's weakness to "infection" with respect to financial deception and to find ways to build up one's social immune system. By contrast, building up defenses for the long-term, complex forms of deception inherent in the long-term financial deceptions may be more difficult. MDT should be thought of as a guiding framework for understanding resource-extraction-related crimes. Investigations into WCC—such as securities fraud, embezzlement, and antitrust violations, spanning to short-term financial crimes (e.g., credit card fraud, wire fraud, and identity theft)—may be efficiently guided by the cohesive framework of MDT.

It should be noted that there are parasitic infections that use both long- and short-term infection strategies. For example, chickenpox and Lyme disease both have immediate effects and latent or long-term stages (e.g., Craft, Fischer, Shimamoto, & Steere, 1986). Thus, it is important to note that (although rare) certain individuals may be capable of taking advantage of long- and short-term opportunities. These dual-strategies may occur under special circumstances (e.g., special opportunities)

or among those high in cognitive ability, social skill, or complexity.

Conclusion

The parallels between parasitic infections and predatory nonhuman animal mimicry are likely to guide future research on parasitic and predatory human deception in meaningful ways. Should these analogies hold up to further empirical scrutiny, then MDT may be used to begin to address the nuanced deception strategies that exist in the modern world and to combat them. In the end, when examining how to fight parasitic and predatory mimics, it is best to first look at organisms and micro-organisms that have mastered the trade through millions of years of evolution.

Appendix

With respect to human personality, there are (at least) two traits related to human deception: Machiavellianism (Christie & Geis, 1970) and psychopathy (Cleckley, 1976). In recent studies, researchers have found that only psychopathy is associated with risk in the face of retribution (Jones, 2014b) and that individuals high in Machiavellianism do not engage in risky forms of cheating (Williams, Nathanson, & Paulhus, 2010). Moreover, in experimental work, researchers have also found that ego depletion occurs only among individuals high in Machiavellianism, suggesting intact executive functioning (Jones, 2014a). Nevertheless, much of the research on the long-term nature of Machiavellianism relies on controlling for the overlap with psychopathy and null effects (Jones & Paulhus, 2011a). For example, regression results indicate that only psychopathy has a unique association with impulsivity, but both assessments have a moderate to high positive zero-order correlation with impulsivity (Jones & Paulhus, 2011b). These findings are problematic given that impulsivity was not conceptualized as part of the original Machiavellianism construct (Christie & Geis, 1970). In addition, Machiavellianism is also negatively correlated with conscientiousness, which may reflect short-term behaviors (e.g., Jakobwitz & Egan, 2006).

Classic research on these traits was conducted in separate areas of psychology, leading their literatures to be somewhat isolated (McHoskey, Worzel, & Szyarto, 1998). This isolation may have blurred the definitional boundaries among the constructs (Paulhus & Williams, 2002). Even if these traits were clearly defined within and across constructs, there are further problems surrounding disagreement over assessment (e.g., Hare & Neumann, 2010; Jones & Paulhus, 2009; Miller & Campbell, 2008; Skeem & Cooke, 2010). In fact (perhaps because of their isolated development), standard assessments of these two traits correlate quite highly (approximately .50; see O'Boyle et al., 2012). Further, Jones and Figueredo (2013) demonstrated that Hare's (2003) Factor 1 (interpersonal manipulation and affective callousness) is central to both constructs. Thus, there may be aspects of human deception across a long- versus short-term continuum that specific traits may miss because of constraints surrounding trait definitions, even though Machiavellianism and subclinical psychopathy are usually assessed on a continuum (LeBreton, Binning, & Adorno, 2006).

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Note

1. It should be noted that the empirical evidence is mixed with respect to Machiavellianism being a long-term trait (see the Appendix for more information).

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