



# A Functional Analysis of Human Deception

**ABSTRACT:** *A satisfactory analysis of human deception must rule out cases where it is a mistake or an accident that person B was misled by person A's behavior. Therefore, most scholars think that deceivers must intend to deceive. This article argues that there is a better solution: rather than appealing to the deceiver's intentions, we should appeal to the function of their behavior. After all, animals and plants engage in deception, and most of them are not capable of forming intentions. Accordingly, certain human behavior is deceptive if and only if its function is to mislead. This solves our problem because if the function of A's behavior was to mislead, B's ending up misled was not an accident or a mere mistake even if A did not intend to deceive B.*

**KEYWORDS:** deception, misinformation, intention, function, signaling, mimicry

## Introduction

In this article, I argue that a person engages in deception if and only if the function of her behavior is to mislead (i.e., cause a false belief or less accurate credence in a proposition); she need not actually intend to mislead by behaving the way she behaves. This analysis both captures paradigmatic cases of deception, where people mislead others intentionally and allows us to identify and understand many cases that should rightly count as involving deception though the relevant intention is lacking. In fact, people sometimes engage in deception even when they intend *not* to mislead.

According to the traditional view, something counts as human deception only if the deceiver intends to cause epistemic harm or to mislead (see, e.g., Mahon 2007, 2016; Carson 2010: 47–49; Fallis and Lewis 2019). On this view, causing false beliefs or inaccurate credences inadvertently is not a matter of deception but rather of misleading others unintentionally (Carson 2010: 47). Such a view implies that when it comes to human behavior, deceiving someone and unintentionally misleading them are two distinct phenomena.

There have been attempts, however, to show that misleading unintentionally should also count as deceiving. Using the lexical approach, in which we use dictionary definitions as models for defining phenomena, Alfred Mele (1997) defends this idea with the following argument:

I thank Russ Shafer-Landau, Eliot Michaelson, the anonymous reviewer of this journal, and all those colleagues who anonymously commented on this paper in good faith. Your professionalism and kindness are much appreciated!



In a standard use of ‘deceived’ in the passive voice, we properly say such things as ‘Unless I am deceived, I left my keys in my car.’ Here ‘deceived’ means ‘mistaken.’ There is a corresponding use of ‘deceive’ in the active voice. In this use, to deceive is ‘to cause to believe what is false’ (my authority is the *Oxford English Dictionary*). Obviously, one can intentionally or unintentionally cause someone to believe what is false, and one can cause someone to acquire the false belief that  $p$  even though one does not oneself believe that not- $p$ . Yesterday, mistakenly believing that my son’s keys were on my desk, I told him they were there. In so doing, I caused him to believe a falsehood. I deceived him, in the sense identified; but I did not do so intentionally, nor did I cause him to believe something I disbelieved. (1997: 92)

This argument is problematic. The adjective ‘deceived’ (‘having a false belief’) does mean ‘mistaken’ or ‘misled’ (premise 1), and it is true that I can cause you to believe what is false intentionally or unintentionally (premise 2), but these two premises do not entail that I can deceive you unintentionally. For the conclusion to follow (‘Mele deceived his son’), the argument requires a hidden premise 3, according to which ‘deceiving’ and ‘causing to believe what is false’ are identical in meaning and reference, which they are not. While deceiving indeed involves causing others to believe what is false, so does judging erroneously, misperceiving, miscalculating, and so on. Therefore, because premise 3 is false, we cannot infer that Mele deceived his son unintentionally.

Mele is not entirely wrong, however. What makes the idea of deceiving while intending not to deceive sound odd is not the thought that people can deceive unintentionally, but rather the thought that people can deceive by accident or by mistake. Mele wants to count accidental misleading or errors as deception (he ‘deceives’ his son by mistake), but it does not seem right to think that deception can be accidental or that *any* organism (including lower animals and plants) can deceive by mistake (see section 1.1). For example, in their analysis of biological deception, Fallis and Lewis (2019: 2282, emphasis in original) write:

An analysis of deception must provide a non-arbitrary criterion that distinguishes deceptive signals [communication, behavior] from signals that are *merely* misleading. In particular, it must rule out cases where it is a *mistake* or a *mere accident* that the receiver is misled (see Skyrms 2010: 76; Fallis 2015a: 383; McWhirter 2016: 759; Artiga and Paternotte 2018: sect. 2). The ‘intentionality’ requirement is what allows the traditional analysis to do this. If a misleading signal is sent intentionally, then it is not an accident.

I think that we have a better way of discriminating human deception from mere accidents and errors. All we need to do is to see what constitutes biological deception. Animals and plants engage in deception even when they are not capable of forming intentions; their behavior is described in terms of functions of behaviors or traits rather than intentions. Human behavior can also be captured

by suitable functional descriptions. Therefore, I will put forward an analysis that understands human deception in terms of the functions of people's behavior, rather than in terms of their intentions. That is, I will argue that people engage in deception only if the function of their behavior is to mislead (i.e., misinform, cause epistemic harm) and that they need not be aware of this function or actually intend to mislead although human deceivers predominantly do act on this intention.

There is much to be gained and nothing to be lost from adopting this approach to human deception. As Artiga and Paternotte (2018: 581) already argued, there are many analogies between intentional behaviors and adaptations (i.e., traits evolved by natural selection). Adaptations seem to have a purpose in the same way intentional behaviors do. Therefore, by shifting to a functional analysis of human deception, we do not lose a distinction between deceiving and simply misleading (accidentally, by mistake). Rather, we become capable of understanding a broader spectrum of situations that involve deception (see section 1.2). The functional approach thus provides a more comprehensive and sophisticated perspective on human interpersonal behavior, but this is not all: it may allow us to model self-deception nonproblematically on interpersonal deception.

Modeling self-deception on the traditional analysis of interpersonal deception generates an untenable account of self-deception. This approach is untenable because it requires that the self-deceiver intentionally causes herself to believe as true what she already believes is false (she intentionally deceives herself), which seems to be impossible for at least two reasons. First, it entails that, at some point, self-deceivers not only consciously and simultaneously believe both that not- $p$  (as deceivers) and that  $p$  (as dupes) but also that they cause themselves to believe that  $p$  because they already believe that  $p$  is false. What I mean is that if A wants B to believe that  $p$  and A believes that  $p$  is true, then A will not intend to deceive B into believing that  $p$ . This, then, entails that the person's belief that  $p$  (dupe-self) and her belief that not- $p$  (deceiver-self) are inferentially connected and thus cannot be suitably separated in different compartments of her mind. Also, to succeed, self-deceivers should, at the same time, both be aware of their deceptive intention (as deceivers) and not be aware of it (as victims), but it seems wrong to think that a unified and reasonably coherent mind can simultaneously both be and not be aware of its intention (see Krstić 2023b: §1).

To avoid this problem many philosophers (e.g., Mele 1997, 2001; Barnes 1997; Holton 2001) argue that self-deceivers act intentionally (or subintentionally) but deceive themselves unintentionally (and unknowingly); this is a byproduct of their behavior. On this view, self-deceivers normally want to believe that  $p$ , but they do not believe or suspect that  $p$  is false. And some philosophers even say that self-deception amounts to a simple error of self-knowledge (e.g., Patten 2003; Fernández 2013). These solutions do not generate a paradoxical account of self-deception, but they assume that people deceive themselves accidentally or by mistake: the false belief (inaccurate credence) is an unforeseen byproduct of the person's behavior, an error. Therefore, these solutions fail to locate *deception* in self-deception.

Modeling self-deception on a functional account of interpersonal deception neither generates paradoxes of self-deception because the intention to deceive is

not necessary for self-deception, nor do mere mistakes and accidental self-misleading count as self-deception because deception happens only when the function of the behavior that misleads is to mislead. A functional analysis of self-deception, thus, should be able to solve two problems at the same time. Unfortunately, I cannot provide a complete functional analysis of self-deception here; however, I will draw up some basic theses regarding human deception in general that will make such an analysis possible (see also Krstić 2021 and especially Krstić 2023b where I offer a nonparadoxical analysis of lying to oneself).

My game plan is simple. I first present the functional view (section 1.1), apply it to some cases of nonparadigmatic interpersonal deception (section 1.2), and consider a possible objection to my argument (section 1.3). In section 2, I offer some concluding remarks.

## 1. A Functional Analysis of Human Deception

### 1.1 The Theory

The traditional analysis of interpersonal deception, according to which deceivers must mislead intentionally, rules out the possibility of much deception in the nonhuman world. But it seems fairly uncontroversial that animals and even plants also engage in deception; fake alarm calls, camouflage, and mimicry are obvious examples. To capture cases of biological (animal and plant) deception, modern theories appeal to payoffs, manipulations, or functions of signals or states, rather than to deceivers' intentions. Allow me to discuss three such views before I put forward my preferred analysis of human deception.

The most common philosophical analyses of biological deception are signaling-based. On the standard signaling-based ('Skyrmsian') view, a signal *S* is deceptive iff (1) *S* carries misinformation (it changes objective probabilities of states in the wrong direction); (2) transmitting *S* systematically benefits the sender (typically, at the receiver's expense); and (3) the receiver is misled by the signal (e.g., Searcy and Nowicki 2005; Skyrms 2010; McWhirter 2016; Shea, Godfrey-Smith, and Cao 2018; Fallis and Lewis 2019, 2021). Some scholars simply say that the signal is misinformative or that it *is* misinformation (e.g., Skyrms 2010) rather than that it carries misinformation, but this distinction is not important for my argument. The important point is that the systematic sender-benefit condition eliminates situations in which the receiver was misled accidentally by providing an explanation for why the misleading signal is not just a random occurrence. That is, if the sender systematically benefits from sending a misleading signal, there is a mechanism (e.g., selection pressure) that reinforces the sending of the misleading signal (Fallis and Lewis 2019: 2283). Thus, it is not an accident or a mistake that the receiver is misled.

According to one interesting rival signaling-based analysis (Birch 2019), deception requires that by sending a deceptive signal an agent strategically exploits an adaptive disposition in the victim by raising the probability, from the victim's standpoint, of a nonactual state of the world. On this view, we have deception if and only if (1) a signal *S* carries misinformation (it changes subjective

probabilities of states in the wrong direction); (2) sending *S* is a part of the sender's strategy that exploits a particular adaptive disposition in the receiver to perform behavior *B* in the (nonactual) state of the world whose probability was raised by the signal; and (3) the receiver is misled by *S*. The fact that the exploitation is strategic *and* that the strategy targets particular dispositions in the receiver eliminates situations in which the signal carries misinformation accidentally (Birch 2019: 31). The sender need not benefit from this.

Finally, according to the so-called 'functional' analysis, a state of the world *M* is deceptive if and only if (1) *M* has the function to mislead (or to prevent the acquisition of new information) and (2) *M* leads to misleading (Artiga and Paternotte 2018: 591; the authors say 'cause a misinformative state' rather than 'mislead'. For the sake of simplicity, I use 'mislead' in the same meaning.). *M* could be a state of the world in which I lie to you or in which a stick insect mimics a branch; it is not *my* state in which I am lying or *the stick's* state in which it has a particular appearance. In presenting the functional view, however, I will refer to functions of behaviors (or traits) rather than states consistently throughout to make reading easier. The fact that the function of *M* is to mislead eliminates situations in which someone's ending up misled was an accident or an error. The deceiver need not benefit from this. The functional view has one more advantage: insofar as some strategies of deception do not involve signaling, and I argue that this is the case (Krstić, 2023c), this view has a broader scope than the rival signaling-based analyses.

Consider the following case of fake alarm calls. Low-ranked male Kitui monkeys sometimes give leopard alarms when a new male tries to join their group and challenge them. The call causes other monkeys to flee up nearby trees, thus preventing the outsider from joining the group. According to the signaling-based analyses, this is deception because (1) the signal carries misinformation (by raising the probability of a state in which a leopard is present); (3) other monkeys were misled, and either (2a) the sender benefits from sending the signal (the standard signaling-based view); or (2b) by sending the signal, the monkey strategically exploits the behavior of other monkeys that benefits them in a state of the world in which a leopard is genuinely present (the strategic exploitation view). On Artiga and Paternotte's (2018) functional view, this counts as deception because (1) the function of the monkey's behavior is to mislead, and (2) this behavior misleads other monkeys.

If a Kitui sends the signal because he mistook a bush for a leopard, this is not deception because condition (2) is not satisfied on the signaling-based views, and condition (1) is not satisfied on the functional view. Mele's unknowingly causing his son to acquire a false belief about the whereabouts of the keys does not count as deception for the same reasons: misleading his son does not benefit Mele; it is not a part of Mele's strategy of exploiting one of his son's dispositions, and the function of Mele's behavior is not to mislead.

Thus, none of the three views classifies accidental misleading as deception. However, because it sits comfortably with the existence of both altruistic human deception and nonadaptive self-deception (deception that does not benefit the self-deceiver) and because it is not limited to deception involving signaling (Krstić,

2023c), I propose an analysis of human deception developed along the lines of Artiga and Paternotte's (2018) functional account of deception, Fallis's (2015b) functional analysis of disinformation, and my analysis of self-deception (Krstić 2021).

Let us first present the theory on a simple example of biological deception and then cash it out as a general theory of human deception. When a Western hog-nosed snake deters predators by simulating death, this is deception on my rendition of the functional view because

- (1) 'detering predators' (*F*) is the (beneficial) *result* of 'the snake's simulating death' (*M*),
- (2) simulating death (*M*) generates this result by misleading,
- (3) misleading is the *function* of simulating death, and
- (4) predators ended up misled (and, as a result, deterred) because the snake simulated death.

In short, misleading is the function of *M*, the predators ended up misled as a result of *M*, and because *M* performs *F* by misleading, *M* generated *F*. When cashed out as a general theory, we get that state *M* is deceptive if

- (1) *F* is the (beneficial) *result* of *M*,
- (2) *F* is generated by misleading,
- (3) *M* has the *function* of misleading, and
- (4) (in part) because of (3), *M* causally contributes to misleading.

Some important clarifications are in order here. First, this functional view relies on Garson's (2019) generalized selected effects theory (GSE) of function. According to GSE, the function of *x* is whatever it did in the past that contributed to *x*'s differential reproduction or differential retention within a population. 'Differential reproduction' means that *x* can acquire a function based on what caused *x* to multiply. The function of zebra stripes is to deter biting flies because that is what helped the striped zebras out-reproduce the stripeless ones. Synapses in the brain, however, do not reproduce; for them, success means persisting better than your neighbor. Thus, 'differential retention' is about development and maintenance; it explains how things like synapses can acquire new functions through operant conditioning (Garson 2019: §5). 'In a population' means that selection always takes place within a group of individuals that impact each other's chances of survival. Finally, the function of *x* is the activity that is most *proximal* to *x*; it is the first activity in the sequence. The function of the heart is to beat, not to circulate blood. The circulation of the blood is a beneficial result of the heart's performing its function (Garson 2019: §7).

This view seems to be good enough for our purposes, and it is better than the view I presented in Krstić (2021). When applied to the proposed functional analysis of deception, we get that just as the circulation of blood is a beneficial result of the heart performing its function (i.e., beating), deterring predators is the beneficial result of the snake simulating death performing its function (i.e., misleading). And the result explains why the behavior has this specific function. Just as the fact that the heart's pumping causes the blood to circulate explains why the heart pumps, the fact that simulating death (i.e., misleading) systematically deters

predators explains why the snake simulates death (why it engages in misleading behavior). The function of the relevant behavior is simply to mislead in a certain context; it is neither to mislead someone specifically nor to mislead always. Playing dead can mislead anyone, not just predators, and it can have the function to mislead in one context (e.g., fighting for survival) but not in another (e.g., acting in a play).

Another important clarification is that satisfying conditions (3) and (4) constitutes deception (see Artiga and Paternotte 2018); these are necessary and jointly sufficient conditions for deception. Conditions (1) and (2) are neither necessary nor jointly sufficient. The Western hog-nosed snake plays dead to deter predators, and it does this by misleading them, but it may also mislead nonpredators. Because misleading is the function of simulating death, misleading nonpredators is not a mistake or an accident, and so this counts as deception even though this is not the kind of beneficial result that explains why this behavior evolved.

Having said that, one may naturally wonder why I introduced two conditions that are neither necessary nor sufficient for deception. The answer is that the distinction between the *result* and the *function* of the deceiver's behavior is crucial for my analysis. Normally, the reason for deceiving is the deceiver's benefit ('result'), and misleading is the means of achieving this end: the deceiver gets what he wants by misleading the dupe. For example, if I cause you to falsely believe that your distant uncle from Nigeria has left you a fortune, I aim to trick you into wiring me 10 dollars ('for the transfer fee'). Causing you to acquire the relevant false belief is a means by which I get your money. However, my getting your money (the result) does not *constitute* deception—because you may give me the money out of pity, knowing full well that I am trying to con you. Rather, it is causing you to believe my 'Nigerian uncle' lie (the function of my behavior) that constitutes deception, and if this happens, we have deception even if you do not give me the money (you may not have 10 dollars). In short, the result explains why the deceiver engages in deception, and the function explains why this is deception.

Capturing the result of deception clearly with the functional analysis—conditions (1) and (2)—is vitally important because I argue that human behavior may involve deception even if the deceivers do not intend to mislead: they may have the behavior's *result* in mind (they intend the result) but not its *function* (they do not intend to mislead). Therefore, all four conditions become very important below.

Let us now consider an example of animal deception discussed by almost every philosopher analyzing biological deception. I will use this example as a reference point in my analysis of human deception.

*Fireflies* use their light for sexual signaling. While flying over meadows, male fireflies flash a species-specific signal. For instance, the *Photinus* firefly produces a yellow-green flash, whereas the *Pyroactomena* firefly produces an amber flash. If a female *Photinus* on the ground gives the proper sort of answering flashes, the male descends, and they mate. An exception to this practice is the behavior of female fireflies of the genus *Photuris*. When one of these fireflies observes the flash of a male of the genus *Photinus*, she may mimic the *Photinus* female signals in order to lure the male *Photinus* in and eat him.

The yellow-green flash is standardly understood as meaning something like ‘I am a *Photinus* female ready to mate’ or as raising the probability of this state (e.g., Skyrms 2010; Birch 2014; Shea, Godfrey-Smith, and Cao, 2018; Skyrms and Barrett 2019; Fallis and Lewis 2021; however, see Fallis and Lewis 2019; Krstić, 2023; Krstić and Saville 2019). Therefore, the signal carries misinformation when sent by the predator female (*Photuris*). According to the functional analysis put forward here, this is deception for the following reasons. The predator female transmits the yellow-green flash because the food tends to come down to her when she sends the signal—condition (1) is satisfied. The food coming down explains why she transmits the signal. The signal generates this result (bringing her food) by misleading the harmless males (*Photinus*)—condition (2) is satisfied. Misleading is the signal’s function—condition (3) is satisfied. And when males are misled by the signal, this is deception—condition (4) is satisfied.

However, and this is vital for the correct understanding of human deception, the predator female does not signal in order to mislead; rather, she simply signals for the food to come down. To use anthropomorphic language, she does not transmit this signal because it means ‘mate’ for the harmless male but rather because it means ‘food’ for her. She neither intends to deceive nor does she realize that she is deceiving. She has only the beneficial result ‘in mind’, and this result explains why she behaves as she does. What explains why her signal carries misinformation is selection pressure, namely, the fact that only misleading will cause the food to descend.

The crux of my argument is the claim that this exact situation regularly occurs in human deception: just like the predator firefly, people may engage in certain behavior in situations in which this behavior generates a particular result, and they may be aware of their behavior’s result but not of its function (to mislead). Therefore, these human deceivers do not intend to mislead. The behavior’s function is an adaptation (cultural, evolutionary, etc.) caused by the fact that honesty systematically does not generate the required response on the part of the victims. But before discussing nonparadigmatic human deception in detail, allow me to distinguish two ways of engaging in deception to capture paradigmatic and nonparadigmatic human deception: being *deceitful* and being *deceptive*.

Jennifer Lackey (2013) was the first to distinguish deceptiveness from deceit, but I use the terminology differently. According to her, both kinds of deception are intentional: a deceitful person intentionally causes a false belief, whereas a deceptive person intentionally conceals relevant information behind her lie(s). On my version of this distinction, by  $\varphi$ -ing in context C:

**Deceptiveness:** A is being deceptive iff the function of  $\varphi$ -ing in C is to mislead.

**Deceit:** A is being deceitful iff A intends to mislead by  $\varphi$ -ing in C.

This distinction will suffice for our purposes. The concept that is of interest here is deceptiveness because deceivers who do not intend to deceive are being deceptive but not deceitful (deceitfulness is a kind of deceptiveness). The predator firefly and the Western hog-nosed snake are being deceptive, and we should not think that all kinds of human deception involve deceit, either. In some situations, human



deceivers may be aware of their behavior's result but not of the fact that they get what they want by misleading others. This is how the predator firefly 'knows' that the signal tends to cause the food to come down even though she does not 'know' that the food comes down because the signal misleads it.

The next section features some cases that seem to involve nonparadigmatic human deception in which people deceive others while not intending to cause false beliefs or less accurate credences in anyone. I will compare these cases with *Fireflies*, show that the analogies between them are striking, and conclude that they should, therefore, rightly count as involving deception even though the agents did not intend to mislead. I will then consider an objection to my analysis (subsection 1.3) and conclude the discussion (section 2).

## 1.2 Nonparadigmatic Human Deception

When we say that in deception misleading cannot be an accident or result from a mistake, we should keep in mind that this does not mean *just* that the false belief that A causes in B is a consequence of A's behavior. This is a necessary but not sufficient condition: if A incorrectly believes that *p* and causes B to believe it as well, it is not a mistake that B now believes that *p*, but it is a mistake that B believes a *falsehood*, and—as said—it does not seem right to think that any organism can deceive by mistake.

As a warm-up example of nonparadigmatic, functional interpersonal deception (derived from Krstić 2021) consider a reading of an interesting piece of advice for job interviews in academia. The advice is *Don't 'be yourself'* (Arvan 2015). Rather than being yourself, you should create

a professional persona. . . [namely,] a full-fledged adult who demonstrates a tightly organized research program, a calm confidence in a research contribution to a field or discipline, . . . innovative but concise, non-emotional ideas about teaching at all levels of the curriculum, . . . and . . . a steely-eyed grasp of the real . . . needs of actual hiring departments. (Kelsky 2012)

This advice is not meant for a person who is simply nervous before an interview (if this were the case, the advice would have been 'Don't show that you're nervous') but rather for a person who has spent years on the job market desperately trying to land a job. People who have just earned their PhD hardly can have a steely-eyed grasp of the real needs of actual hiring departments. For them, the advice 'don't be yourself' genuinely means something like 'present yourself as *a different person*, a person who should definitely be hired'. This advice is very sensible, and it comes with a series of useful instructions on how to present oneself in the best possible light. However, 'don't be yourself' is exactly what one predator female firefly would say to another (if they could speak).

What I mean is that just as the candidate does not want to transmit a message that the committee members will understand as 'I am not at all confident in my teaching abilities, and I'm losing faith in my research, but I desperately need this job', the

predator female fireflies do not ‘want’ to transmit a signal that harmless males will understand as ‘I eat harmless males, and I need you to come down’. The not-being-himself job candidate *mimics* the perfect candidate in the same way the predator female firefly mimics a sexually receptive female. Therefore, if the predator firefly engages in deception, why not say the same about a job candidate, call him Penniless, who is not being himself but who misleads only having in mind the beneficial result of his behavior (getting the job)? Here are the similarities between the two cases (call the latter *Job Candidate*).

While Penniless’s intention is to get the job (the beneficial result) rather than misleading anyone, misleading is nonetheless the function of his behavior: the interlocutors should think that he is ‘a steely-eyed professional persona’ rather than a nervous wreck who has lost faith in his research and teaching but desperately needs a job. And this function is a product of the fact that misleading members of search committees is a more successful strategy for causing them to hire nervous wrecks than informing them; the selection pressure explains why misleading occurs in this context. Therefore, it will not be an accident if Penniless misleads the members of the search committee by not being himself. Penniless and the predator female firefly are both being deceptive but not deceitful: they both do not intend to mislead anyone, but the function of their behavior is to mislead.

Nevertheless, it could be objected that, unlike *Fireflies*, *Job Candidate* does not involve deception. The context is such that this is a formal interview, everyone involved understands that this is a formal interview, and a job candidate’s behavior is a performance; it is like being on stage. Because the interviewers understand all of this, it would be peculiar were they to be misled as to this being the ‘the real Penniless’. However, from the fact that the context involves general distrust, it does not follow that no (mis)information can be communicated. Poker games are an obvious example. In poker, one player may think that they have another player ‘figured out’, and the other player can use this to mislead him by manipulating his expectations. For instance, if player B has reasons to think that player A expects a lie or a bluff, B may double bluff, and if B thinks that A expects a double bluff, B may triple bluff, and so on. Likewise, a job candidate can use this general distrust involved in job interviews to their own advantage: they may exploit the fact that search committee members can never know which part of the interview is actually not a performance. Therefore, plausibly assuming that the information obtained in *some* job interviews makes some difference when it comes to hiring people who are being interviewed, job candidates being interviewed can cause epistemic harm in this context. And, if so, not being oneself at a job interview sometimes counts as engaging in deception.

Another objection says that Penniless realizes that he is pretending to be someone he is not and that, thus, he realizes (expects) that he will thereby mislead the members of the search committee. Therefore, he *obliquely* intends to mislead and is, thus, being deceitful after all. If there are twin consequences of an action,  $x$  and  $y$ , and A wants  $x$  and is prepared to accept  $y$ , then both  $x$  and  $y$  are considered as A’s intended ends, and A is equally responsible for both. In this situation, we say that A intends  $x$  directly and  $y$  *obliquely* (see Williams 1987). A man who (directly) intends to kill his wife and plants a bomb under the bus she takes every day obliquely intends to kill other passengers. Likewise, if Penniless believes that his not being himself has twin

consequences, getting the job ( $x$ ) and misleading his interlocutors ( $y$ ), and he intends  $x$  and is prepared to accept  $y$ , then he obliquely intends to mislead them, and this—the objection concludes—explains why this counts as deception.

On this interpretation, *Job Interview* is analogous to a situation from the movie *Yes Man* (Warner Bros. 2008) in which Carl is playing a ‘Yes’ game, and he needs to say ‘yes’ to everything. When Alison, who knows nothing about the ‘Yes’ game, asks Carl to move in together, he says ‘yes’ but not because he really wants to do this but rather because he follows the rules of the game. Because Carl knows that he will cause Alice to acquire a false belief, he counts as intentionally deceiving her though his intention is oblique (see Krstić 2020, 2023a).

Positing oblique intentions does not explain all variations of *Job Interview*: some candidates may not realize what they are doing by ‘not being themselves’, and one cannot obliquely intend to  $y$  if one does not realize that  $y$  is a consequence of one’s behavior. Besides, there are other examples that obviously do not involve an oblique intention to mislead and so do not qualify as involving deceit.

For instance, some people put on makeup so subtly that it looks like they are not wearing makeup at all while their skin looks young, without wrinkles, and naturally fresh. Because the function of this behavior is to cause false beliefs about one’s appearance, these people are engaged in deception, but we should not think that they *all* (even if some do) intend to cause epistemic harm. Most of them have simply perfected applying makeup in a way they think is fashionable, and they do this because they think it is fashionable, not because they intend or expect to mislead. These people are being deceptive but not deceitful. Consider a TV host, a middle-aged man whose makeup is intended to make him look well-rested, younger, and without wrinkles. When he applies makeup before a show, he engages in deception even though he need not intend or expect to mislead anyone; he could just want to look younger and be more attractive to his viewers. He may think that this is a ‘demand of the profession’ and try to satisfy this ‘demand’. This man is also being deceptive but not deceitful.

Let us compare this case with Mele’s example from section 1. Mele writes that, mistakenly believing that his son’s keys were on Mele’s desk, Mele misinformed his son by telling him they were on Mele’s desk. To show why the TV host’s behavior should count as involving deception whereas Mele’s example should not, consider Davidson’s (1963: 686–87) famous example (*italics and a comment added*):

I flip the switch, turn on the light, and illuminate the room. Unbeknownst to me I also alert a prowler to the fact that I am home. Here I do not do four things, but only one, of which four descriptions have been given. I flipped the switch because I wanted to turn on the light, and by saying I wanted to turn on the light I explain (give my reason for, rationalize) the flipping [I flipped the switch because I intended to turn on the light]. But I do not, by giving this reason, rationalize my alerting of the prowler *nor my illuminating of the room*.

When Mele tells his son that the keys are on Mele’s desk, he does this because he intends to give his son the correct location of the keys. This gives us the reason for

uttering ‘They are on my desk’—it rationalizes Mele’s behavior. But it does not rationalize causing a false belief in his son. Causing this false belief is analogous to alerting the prowler. This is deception neither on the traditional view because the intention is not to mislead nor under a functional description because the function of sincerely reporting on your beliefs is not misleading.

In contrast, when a specific middle-aged TV host puts some makeup on, the rationalization is that he wants to look younger or more attractive to his viewers, to satisfy the demands of his profession (beneficial result)—condition (1) of the functional analysis is satisfied. He flips the switch (puts on makeup) in order to turn on the light (look younger, more attractive)—condition (2) is satisfied (misleading generates the beneficial result). And just as the function of turning on the light is illuminating the room, the function of looking younger is causing false beliefs or incorrect credences—condition (3). Therefore, this is deception when the host’s behavior misleads the audience, condition (4). Just as Davidson nonaccidentally illuminates the room by flipping the switch but only intends thereby to turn on the light, so the TV host nonaccidentally causes false beliefs about his appearance and age, but he intends only to look younger or more attractive.

However, while Davidson can easily see that by turning on the light he illuminates the room, it does not follow that all people who put on makeup to look younger, prettier, and so on can easily see that they are being deceptive: this is where the analogy breaks down. That is to say, even though the TV host intends to look younger, it does not follow that he intends to mislead others about his age. Intentionally making yourself look different (i.e., younger) does not entail realizing that you are being deceptive. This realization requires a further reflective inference some people do not make (not right away, at least). However, in standard contexts, the function of *looking* differently just is to signal that you *are* different (the function of turning on the light is illuminating the room), and thus, the TV host misleads unintentionally and unknowingly but neither accidentally nor by mistake; he is being deceptive but not deceitful.

Interestingly, by consistently applying makeup in such a way, this TV host could mislead even himself. He could, for instance, in some foreseeable future cause himself to believe that he is younger in his biological age (how old his cells are) than in his chronological age (how long he has existed). If this happens, we would have a case of self-deceptiveness but not of self-deceitfulness because he did not intend to deceive himself but his ending up misled by his own behavior was not an accident or a mistake. The Western hog-nosed snake misleads nonpredators in the same way. We seem to have a plausible and nonproblematic functional reconstruction of self-deception that correctly locates deception in self-deception. This reconstruction, of course, is far from offering a complete etiology of self-deception, but it is plausible enough for our purposes.

Another example of nonintentional human deception involves using the poisonous ‘belladonna’ (*Atropa belladonna*) plant to make one’s pupils dilate to give one’s eyes a dusky and lustrous appearance. Because this dusky and lustrous appearance was considered to be the height of beauty in Renaissance Italy

(‘belladonna’ means ‘beautiful lady’), women in Renaissance Venice used belladonna extract to dilate their pupils (Passos and Mironidou-Tzouveleki 2016: 766; Carlini and Maia 2017: 66). For example, Titian’s painting *Woman with a Mirror* seems to depict a lady who used belladonna to enhance her beauty (Masterson 2017). But why do large pupils make women look more beautiful?

According to recent research, people’s pupils grow largest when they are looking at someone they find sexually stimulating. Men are most attracted by large pupils in women, while women are most attracted by medium-sized pupils in men (Tombs and Silverman 2004; Rieger and Savin-Williams 2012), and women’s pupils dilate more than men’s (Lick, Cortland, and Johnson 2016). One plausible explanation for this discrepancy in preferences is that males are most attracted by large pupils because it is in their reproductive interest to avoid missing a mating opportunity with an interested partner (Tombs and Silverman 2004; Lick, Cortland, and Johnson 2016), whereas female mating strategies are best served by more moderate sexual attentions because then they can avoid physical harm (caused by, e.g., forced copulation). This hypothesis is also consistent with the fact that homosexual women exhibit male-typical sexual responses (Rieger and Savin-Williams 2012: 7–8).

In short, *the false impression* that a woman with large pupils is sexually aroused made her more attractive in the eyes of men and some mainly homosexual women. In functional terms, this is deception because of the following reasons. The beneficial result of dilating one’s pupils is to look more attractive—condition (1). This result is generated by misleading: a woman looks more attractive to particular groups of people because of the given false impression that she is sexually aroused in their presence—condition (2). The function of dilating pupils is to mislead (cause the false impression that the woman is sexually aroused)—condition (3). And this behavior involves deception when it leads to misleading—condition (4).

Finally and vitally, because people in Renaissance Italy did not have access to relevant modern studies, women who used belladonna obviously did not intend to cause people to think that they are sexually aroused. They just wanted to look more attractive (beneficial result), and they did not know that what made them more attractive was the false impression that they were sexually aroused (function). Rather, they thought that what made them more attractive were larger pupils *qua* larger pupils—in the sense in which a muscular body *qua* muscular body may make a man handsome or in which blue eyes *qua* blue eyes may make a person pretty, and so on. These women, therefore, did not intend to mislead, but this was deception nonetheless—deceptiveness, to be exact. The use of belladonna in the past stands in sharp contrast with more recent Japanese animated cartoons, in which females have exaggerated pupils *precisely because* they indicate sexual arousal (see Durham 2008). The creators of Japanese animated cartoons clearly had deceitful intentions.

*Job Interview*, *TV Host*, and *Belladonna* involve human deceivers whose behavior is analogous to the behavior of the female predator firefly (agents are ‘aware’ of the behavior’s result but not of its function), and they show that not intending to deceive does not entail that a person did not engage in deception. Wearing red lipstick or making your cheeks red (people’s lips and cheeks are red when they are sexually

aroused) are also deceptive behaviors in a functional but not intentional sense. The traditional analysis, which requires deceivers to intend to deceive, seems to get things wrong in these cases. We do feel tricked when we discover that someone is wearing excessive makeup and that they actually look different or that they were misrepresenting themselves in some way so that we would like them (e.g., in a job interview or on a first date), and the functional view explains why we have this reaction: because misleading is the function of their behavior, we have been genuinely tricked.

### 1.3 A Possible Objection

My main argument may appear viciously circular: I use cases of nonparadigmatic deception to support the functional analysis of human deception, but I then use the same functional analysis to support the claim that these cases involve deception. If these cases are evidence that the theory is correct, one may say, then the theory cannot be used to argue that they involve nonparadigmatic deception because this is question-begging. We need reasons independent of the functional analysis to support this interpretation. However, the charge of circularity should not be raised against my argument because *any* plausible theory of biological deception will easily classify my cases as involving deception. I will demonstrate this fact, which further reinforces the functional analysis, by applying the standard and Birch's (2019) analyses to each of the cases discussed. I will then compare these cases with their analogues in animal deception just to seal the deal.

*Job Interview*, *TV Host*, and *Belladonna* all involve deception on the standard (Skyrmsian) signaling-based analysis because the signals carry misinformation, and the senders systematically benefit from sending them. In fact, the signal involves the same kind of misinformation in *Job Interview* and *Fireflies*: it misrepresents the sender as being someone else. And transmitting the signal is to the systematic benefit of the senders: they tend to cause the food to come down or to cause the members of the search committee to offer the sender a job. In *TV Host*, the signal carries misinformation regarding the age of the man and the health of his skin, and in *Belladonna*, the signal carries misinformation regarding the degree of attractiveness of the given woman. And the senders systematically benefit from sending these signals because they get what they want; they look younger or prettier.

Birch's strategic exploitation view gives the same result. To summarize his view (Birch 2019: 5), a signal  $S$ , sent in a state of the world  $X$ , is biologically deceptive if and only if:

Receiver exploitation conditions:

- (a) Sending  $S$  in  $X$  elicits some behavior  $B$  in the receiver (victim).
- (b)  $S$  elicits  $B$  in  $X$  not because  $B$  benefits the receiver in  $X$ , but because
  - (i)  $B$  benefits receivers in some other state of the world,  $X'$ , and
  - (ii)  $P(X' | S) > P(X')$ — in other words, the signal raises the probability of a nonactual state of the world.

Sender strategy conditions:

- c)  $S$  is sent in  $X$  as part of a strategy.
- d) The sender's strategy has been maintained by selection at least in part because of the payoffs conferred by receivers' performance of  $B$  in  $X$ .

Unlike the standard (sender-benefit) analyses of deception, Birch's analysis talks about subjective rather than objective probabilities: the signal increases the probability of a false state from the receiver's standpoint (Birch 2019: 31). This difference, however, changes nothing with respect to our examples. When we apply this theory to *Job Interview*, we get that in this state of the world  $X$ , at least for some members of the search committee, the behavior of Penniless raises the subjective probability of a nonactual state of the world  $X'$  in which Penniless is a professional candidate, and search committees hire candidates (behavior  $B$ ) when they are in  $X'$ . Penniless's behavior is part of a strategy, and this strategy has been maintained by selection at least in part because of the payoffs conferred by search committee members' performance of  $B$  in  $X$ . That is to say, job candidates are not being themselves because some members of search committees hire those candidates whom they judge to be more professional than their rivals in part because of the candidates' performance in the interviews. Therefore, Penniless engages in deception on Birch's account.

Similarly, in this state of the world  $X$ , wearing makeup in a particular way raises the subjective probability of a nonactual state of the world  $X'$  in which a particular middle-aged TV host is young(er) and more attractive, and because viewers tend to look favorably on such TV hosts, media companies tend to hire TV hosts when they are in  $X'$  (behavior  $B$ ). The host's behavior is a part of a strategy, and this strategy has been maintained by selection at least in part because of the payoffs conferred by the audience's performance of  $B$  in  $X$ . That is to say, middle-aged male TV hosts are not being themselves because TV stations employ people in part because they think that these people leave a positive visual impression on their audience. Therefore, the host counts as engaging in deception on Birch's account.

Finally, in the state of the world  $X$ , using belladonna extract raises the subjective probability of a nonactual state of the world  $X'$  in which a particular woman is sexually receptive in the presence of the person who is looking at her, and some parts of the human population are most attracted to such women (behavior  $B$ ) when they are in  $X'$  (when the women's pupils are dilated). The belladonna-using women's behavior, then, was a part of a strategy, and this strategy has been maintained by selection at least in part because of the payoffs conferred by some people's performance of  $B$  in  $X$ . That is to say, women in Renaissance Venice used this dangerous extract (it is essentially a poison) because men were most attracted to large pupils. Therefore, they count as having been engaging in deception on Birch's account even though they thought that large pupils *qua* large pupils are what made them more attractive.

Each example has its clear analogue in animal deception. In *Job Interview*, Penniless is 'not being himself' by mispresenting himself as someone else (a 'professional persona'). This behavior is analogous to the behavior of the predator

female firefly from *Fireflies*: she misrepresents herself as someone else who is ready to mate. The ‘not being themselves’ of the Renaissance women and the TV host is different: first, it does not involve misrepresenting themselves as someone else, and second, it does not entail that they lack the relevant qualities (e.g., that they are not pretty). A handsome or relatively young person can pretend to be even more handsome or younger without knowing that they are causing false beliefs in other people—especially when this behavior is expected or encouraged by their environment. Their ‘not being themselves’ involves a kind of enhancing of their own qualities, and this behavior is comparable to the kind of automimicry in animals and plants.

In a commonly discussed kind of automimicry, some members of a species resemble their better-defended conspecifics. One example is the monarch butterfly (*Danaus plexippus*): some monarchs do not contain toxic cardiac glycosides, but predators cannot easily know which ones. If we treat job candidates as members of one ‘job candidate’ species, the *Job Candidate* involves this kind of automimicry: some candidates who are not ‘professional personas’ mimic candidates who are. However, the TV host and the belladonna examples involve the kind of automimicry in which some parts of an individual are mimicked in other parts of the same individual (animal or plant). In particular, some animals have coloration on their head that makes their horns and antlers look bigger, or their ears are positioned next to horns to make it look like the animal has more horns (Guthrie and Petocz 1970; West-Eberhard 1979: 226), and some plants give an impression of more extensive thorns by having colorful elongated organs found in some other plants (Lev-Yadun 2003).

This kind of automimicry does not involve misrepresenting oneself as someone else: these animals actually have (sufficiently large) antlers or horns; the coloration merely makes them look bigger, and the ears merely make it look like they have more horns (four rather than two). And the plants do have thorns: they just have fewer of them. ‘Not being yourself’ by using the belladonna extract or putting on makeup is analogous to these instances of automimicry. The function here is to exaggerate the already existing qualities rather than to represent the organism as another organism that has these qualities.

All in all, these examples seem to show nicely that one may deceive someone even if one does not intend to deceive them. In this case, one is deceptive but not deceitful.

## 2. Concluding Remarks

In this essay, following Fallis (2015b), Artiga and Paternotte (2018), and my earlier analysis of self-deception (Krstić 2021), I proposed a functional analysis of human deception according to which a person engages in deception if and only if the function of her behavior is to mislead (i.e., cause false beliefs or less accurate credences); she need not actually intend to mislead. I discussed some examples that show that deceiving while not intending to mislead is possible and quite common in human behavior.

And examples of deceiving while intending *not to mislead* may also be quite common. Many people engage in mimicry or automimicry: they make their




eyelashes, pupils, or lips look bigger; they make their lips or cheeks look red; they display excessive kindness at the beginning of a relationship, at work, or in public transport; and so on. But most people want their partners to love them for who they are or their environment to respect and accept them for who they really are. Given these two features, we may safely assume that some people who engage in (auto)mimicry also want to be loved for who they really are. Because they engage in (auto)mimicry, these people engage in deception. However, because they want to be loved or respected for who they really are, they also intend *not* to mislead their potential romantic partners, their colleagues, or even strangers on the bus. It follows, then, not only that they are being deceptive but also that they deceive despite intending *not* to mislead, which is a very interesting situation and something we thought is impossible.

The functional view may also generate a nonproblematic account of self-deception. Allow me to sketch the idea briefly here (I aim to provide a detailed functional analysis of self-deception soon). Recall that the behavior of nonparadigmatic human deceivers is analogous to the behavior of predator female fireflies: by behaving in a certain way, the deceivers ‘desire’ a practical result, but they do not realize that they achieve this result by misleading others. I think that something similar can happen in self-deception: a desire that  $p$  is true (I am young and pretty) or that  $p$  comes about (my favorite team wins) can set in motion a certain behavior whose function is to mislead about something relevant to *whether*  $p$  and which typically generates a tangible (beneficial) result, such as reducing anxiety, resolving dissonance, satisfying a desire, and so on.

This mechanism will mislead the self if, just like Penniless, the TV host, or the Belladonna women, the person is not aware of her behavior’s function. These people may even ‘want’ the result, which would explain why they engage in self-deception, but they will not be intentionally deceiving themselves because they are unaware of their behavior’s function; thus, no paradoxes arise. In view of this etiology of self-deception, I suggested in section 1.2 that the TV host could deceive himself into believing that he is biologically younger by consistently applying makeup that makes him look younger. Elsewhere (Krstić 2023b), I argue that it is even possible to deceive oneself nonparadoxically by lying to oneself (i.e., that intentionally deceiving oneself is not conceptually impossible).

Finally, my functional view generates some new interesting questions relevant to interpersonal deception. For example, even if someone did not intend to cause false beliefs in us, we feel tricked and often offended when we discover that the person in question is wearing lots of makeup that cannot be noticed or that they were pretending to be OK with something or that they like the meal we made or our hairstyle just to make us like them, and so on. Therefore, the fact that one does not intend to mislead does not entail that one is not culpable for one’s behavior. Those who engage in deception do cause epistemic harm, disappoint some people, fail to live up to certain expectations, and sometimes violate our trust. Causing epistemic harm in this way might be relevant for moral culpability even if it is not intended. What has been learned, then, is that intending to cause false beliefs or inaccurate credences is not necessary for moral culpability.

However, it is not immediately clear what makes nonparadigmatic deceivers culpable for their behavior or whether they are always culpable for their behavior. Young girls who have learned the art of makeup while playing with their parents or the people from Renaissance Italy seem to be blameless because they are not in a position in which it could be expected of them to realize that they are causing epistemic harm. Therefore, the existence of nonparadigmatic deception suggests that deception is *prima facie* (i.e., defeasibly) wrong (see Bok 1979), rather than *pro tanto* wrong (i.e., the wrong can be outweighed, but it remains). Accordingly, my functional analysis solves some problems and allows us to understand human behavior better, but it opens some new interesting questions as well.

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