

Imagine two young chimpanzees. One is swaggering, stood on two feet, his coat all puffed up, frantically waving his arms. The other, few meters away, is hooting loudly while beating his hands on the bark of a dead mango tree. They're both ready to charge. Yet, their postures give away much of their fears for the imminent clash. Suddenly, the second chimp stops his dramatic display. Time for reluctance is over. They both rush against each other in a rather clumsy dogtrot. At first, it's a dust-up, but soon it becomes a chase paced by high-pitched screams. The first chimp tries to flee away from his opponent, without success. There's no way to slow down the chase. Every time the first chimp tries to whimper submissively toward the rival, the drummer knocks him down. Not even his desperate resort to biting seems to stop the second chimp. Sucked into the fight, neither of the two chimps notices the big female approaching. Only when her furious scream smothers the frightened chimp's shrieks, they finally see her. The intervention is quick and resolute. She brings herself close to the aggressor, a bulging lip face greeting him. The drummer, still frenzied from the brawl, barely manages to restrain himself. She stomps the ground twice, glancing at her son, now back on his knuckles. The rival retreats. Fight's over.



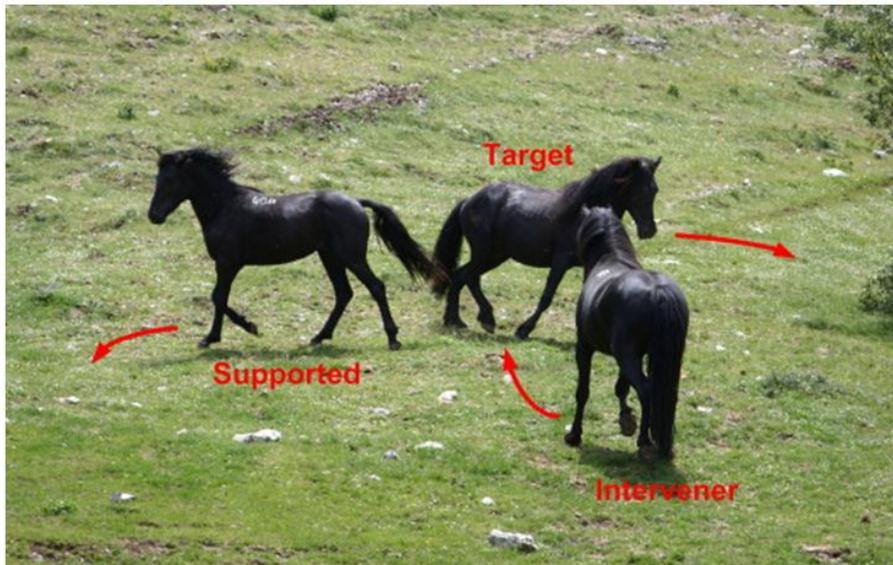
Mostly high-ranking males or females intervene in a conflict. (picture: Claudia Rudolf von Rohr)

Despite my dramatic rendition of the events, the interpretation is definitely straightforward. Two chimps started a fight, the shrieks of the weaker animal alerted the mother, who was probably chewing on some fruits nearby, until she decided to intervene and bring the conflict to an abrupt halt. The reasons for her behavior are easy to guess.

Being her kin, it was in her genetic interest to prevent the escalation of any encounter that would result in serious harm for her son. So far, so good. But even if we change the scenario a bit, replacing the son with an unrelated individual, there's still plenty of reasons for the female to intervene. For instance, since winning a fight can increase an individual's probability of success in subsequent encounters, by interrupting an ongoing contest, the female might prevent the stronger assailant from gaining this "winner effect", which would give to the animal the motivation needed for advancing up the hierarchy and hence become a serious threat for the female herself. Incidentally, this seems to be the reason why third-party fallow deer interrupt fights before they can reach their conclusions (Jennings et al., 2011). But standing on behalf of an individual, especially if high-ranked, may produce even more direct benefits in terms of increased access to resources, such as grooming partners or food, which are granted to the third-party as a result of the fostered social partnership with the rescued party. Lastly, if there are the conditions for reciprocating coalitional support, the costs of the intervener may be outweighed by the benefits of future protection. Needless to say, these interventions are potentially costly, as third-party risk physical injury and

invest energy in fighting. So, we shouldn't be surprised to find that some gregarious animals are able to make flexible decisions regarding whether or not to intervene on the basis of multiple types of information about the identity of the individuals involved in the fight, their social ranking, and so forth. Curiously, spotted hyenas seem to take into account even the number of dominant bystanders before intervening, as if assessing the likelihood of gaining indirect benefits through a sort of "audience effect" (Smith et al., 2009). Dominant chimpanzees, on the other hand, while rarely exhibiting this policing behavior (probably due to the existence of several conflict management mechanisms in the chimpanzee behavioral repertoire), seem to be strongly influenced by "conflict complexity" in their intervention decision, as the number of individuals engaged in conflict was recently shown to be the strongest predictor of their policing behavior (at least in the captive community of Gossau). According to Claudia Rudolf von Rohr et al. (2012), these findings would speak in favor of a group-stabilizing function of policing, as proposed by De Waal back in 1996.

Scrolling through this shopping list of ethological examples, it seems that third party's physical interpolation is mostly limited to agonistic encounter. However, Schneider and Krueger recently showed that this is not necessarily the case. The species under the spotlight this time is the less exotic horse, *Equus caballus*. What the authors found is that the intervening animals (mostly females) are more likely to prevent their group members from exchanging affiliative behaviors, such as grooming, rather than agonistic interactions. Why is that? As we already said, it may be that horses intervene to prevent individuals gaining the "winner effect" while at the same time establishing their mostly linear, despotic rank orders. Alternatively, it may be that they gain direct benefits from keeping their own socially bonded group members from interacting with other social competitors, since especially in group-living herbivores the formation of tight social bonds may help to reduce predation pressure and intra-specific harassment. After having analyzed the social rank of the interveners and the horses challenged, and having measured the spatial and social position of the third-party in the social networks of their group, the authors found that almost all the interveners were high-ranked (a result that makes intuitive sense, given the low cost of challenging subordinates for dominant individuals), and, most interestingly, they had significantly stronger social bonds with the "supported" horses (the animals that, after the interruption of the grooming bouts, simply walked - ahem, trotted - away) than with the "target" ones. The curious selectivity of the interventions observed seems to speak clearly in favor of the second hypothesis, as the "winner effect" alternative predicts otherwise that horses should have taken advantage of every low-cost opportunity to end an affiliative interaction, thus not taking into account the social relationship with second parties. Contrarily to this, high-ranked females challenged group members with which they had no social bonds mostly when they tried to interact positively with group members with which the dominant females were tightly bonded. Interpreting their data in a "biological market" framework (Noë & Hammerstein, 1994), the authors convincingly suggest that these feral horses may have intervened to prevent the socially bonded group members from migrating to other group members by letting the other members "head-hunting" them (Schneider & Krueger, 2012).



Third-party intervention. A third, previously uninvolved animal intervenes in an interaction of two others. Only the target is challenged

At this point, you might (rightly) ask what we can draw from this rather sophisticated example of equine group dynamics. First and foremost, this study intrigued me because it challenges, albeit indirectly, the distinction between evolutionary models of cooperation based on partner choice and on partner control. In the latter partners are given rather than chosen, hence the central issue for any kind of mutually positive social relations to set in is preventing your partner from cheating. In partner choice models, on the other hand, individuals can choose (more or less freely, depending on the specie-specific social structure) their partners, and they can react to their eventual cheating by resorting to the “outside option” of cooperating with someone else (Baumard, André, Sperber, in press). Compared to these models, the behavior of feral horses is a rather complex mixture of the two accounts. In fact, it is precisely because of the existence of a biological market of social relationships, where alliances can be continuously renegotiated drawing from a pool of exchange partners, that female dominants need to “control” their partner, by minimizing their opportunity to interact with non-bonded members. Without such a market, there would be no outside option, and hence no need for the dominant to invest energy in third-party interventions. Given the delicate coexistence between an almost linear hierarchy of dominance and a market of grooming partners for the subordinates, I would dare to say, in a bout of Panglossian enthusiasm, that the third-party intervention occurring in feral horses fits the peculiarity of their social environment. By never attacking the social bonded but exclusively the other member, the dominant female is ensuring a goal - preventing any kind of sociopositive exchange between these two individuals - which she could have attained simply by directly attacking her socially bonded member. But in that way she would have added to the subordinate’s costs of an interrupted grooming exchange also the costs of the attack - an addition that may be crucial for the disadvantaged member to make him invest even more resources to seek out more benevolent partners. To recap, my prediction would be that the greater the social mobility and the number of outside options, the “kinder” the strategies of partner control being adopted.

Apart from this speculative twist, is there anything left to shed light on the social intricacies of *Homo sapiens* that we can learn from the wisdom these contemporary Houyhnhnms? Well, despite not being extremely fond of the old-fashioned, connect-the-dot analogical game across species, I can’t help myself seeing in this example of equine social behavior a pale reflection of that feeling of jealousy toward our friends that I’m sure everybody experienced during one’s teen years. As a young adolescent, many times I found myself perceiving unknown friends-of-friends as outsiders threatening the quality and uniqueness of my existing relationships with my socially closer peers.

Not being a four-legged stud, the behavioral expressions of my jealousy mostly included indirect forms of aggression, such as guilt induction, sulking (I was particularly good at manipulating my mood to divert all my friends' attention toward me), derogation through malevolent gossip, and in some cases a bit of social engineering (that is, manipulating social circumstances to exclude other non-socially close individuals). Relying on this subtle aggression was my only hope to escape the social accountability of obvious aggression and intimidation while achieving the same goal (spoiler: I succeeded most of the time, but I don't know which strategy was my, so to say, winning horse). The problem of my younger Self seems a magnified version of the mare's dilemma. While trying to keep our partners close to ourselves, we may inadvertently give them the incentive to look out for new partners. Because of its ambivalent nature as a sign of commitment and insecurity (Cioran once defined jealousy as "that jumble of secret worship and ostensible aversion"), an individual's display of jealous behavior may perhaps be flattering to a partner at first, but she may grow weary of it and leave the relationship when it proves demanding or exceeds the boundaries of cultural expectations for autonomy in friendship relationships (Parker et al., 2005). Even worse, over time habitually jealous individuals may end up acquiring a retinue of disgruntled past friends within the group, lowering their overall social acceptance. So, as humans with "friendship rules" that include prohibitions against being jealous or critical of a partner's other relationship, we had to handle the problem of social partnership with much more care and intelligence (shrewdness?) than our equine fellows.

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