

In 1871, Charles Darwin published *The Descent of Man, and Selection in Relation to Sex*. This book fully disseminated his theory of ‘Sexual Selection’, a mechanism of evolution via (female) mate choice and physical competition between bachelors. This effectively opened up the doorway to debates over the relation between male and female, both in humans and animals (including the relation between humans and animals), creating a most ripe ground for scientists (including Darwin himself) to read socially constructed beliefs into the animal kingdom. Indeed, more recently, significant feminist-minded evolutionary biologists such as Sarah Hrdy and Patricia Gowaty have made essential contributions to evolutionary literature. They have challenged what they see as male bias in constructs of sex differences in courtship behaviour, most notably what Gowaty has called the ‘axiomatic status’ of Trivers’ Parental Investment Theory.

This feminist endeavour to separate scientific objectivity from patriarchy is a relatively young and highly promising enterprise, and as such it invites a good deal of positive critical attention, with an eye to its potential weaknesses. I would like to share my concern for a certain aspect of the literature that seems to leave room for considerable improvement. It concerns the use and treatment of less-than-neutral words in feminist critique, and I am particularly interested in the term ‘coy’. To begin with an illustration, let us observe a quote by Darwinian feminist Vandermassen (2004):

[T]he females of most sexually reproducing species *are* more discriminating than males about mating. There is a huge difference, however, between ‘coy’ and ‘discriminating’: the former is not a value-neutral term. It is laden with sex-linked cultural meanings and as such does not belong within a scientific vocabulary. (p. 12, her emphasis)

Here, Vandermassen makes a good point about the word ‘coy’ being inappropriate. But notice how she appears to assume that, aside from the ‘neutrality’ issue, the words ‘coy’ and ‘discriminating’ bear the same practical meaning. It will later become clear that the difference between the two words goes well beyond the mere connotations. This is one example of a more general tendency in discussion of stereotypically female and male courtship behaviours. Words like coy, passive and choosy and their general antonyms ardent, active and promiscuous are not necessarily treated with the sort of proper semantic care that science demands of us. Indeed, they are often lumped together as though indistinguishable, with an air of dismissal. This no doubt reflects the sense of irritation felt by feminists at sexual stereotypes, yet at the same time it impedes their own goal of unravelling the intricate truths behind them. In actual fact, such words can mean distinctly different things, and these meanings must be demystified in order to give each and every common belief about males and females the scientific treatment it deserves.

A great starting point for such demystification can be found in Richard Dawkins’ first book *The Selfish Gene*, in a chapter titled ‘Battle of the Sexes’. Though his model of ‘coyness’, drawing largely from Trivers, has been honoured with its own string of theoretical literature, it seems not to have attracted the attention of Gowaty and the like, at least in journals. This is unfortunate, as Dawkins’ approach is actually quite innovative, and can help us to dissect the topic more clearly, as I hope to show. In particular, he can help us to understand the real difference between ‘coy’ and ‘discriminating’ that Vandermassen fails to address.

Reasoning from Trivers’ angle, Dawkins discusses the issue of exploitation of the female by the male. If the male decides that his pregnant mate is capable of rearing

offspring on her own, he has a genetic incentive to go away and look for another mate, leaving the female in what Trivers calls a 'cruel bind' i.e. single parenthood. What, Dawkins asks, can the female do to avoid this situation? He answers: "She has a strong card in her hand. She can refuse to copulate... [she] is potentially in a position to drive a hard bargain before she copulates." (p. 149) In what ways can this financial metaphor take the form of an evolved behaviour? Dawkins raises 'two main possibilities': the 'domestic bliss strategy' and the 'he-man strategy'.

For our purposes, we shall start with the 'he-man strategy'. Dawkins explains:

In species where this policy is adopted the females, in effect, resign themselves to getting no help from the father of their children, and go all-out for good genes instead... They refuse to mate with just any male, but exercise the utmost care and *discrimination* before they will allow a male to copulate with them. (p. 157, my emphasis)

Again, for our purposes, we need not necessarily accept that genetic quality is the only factor, as will be discussed below. Nor do we assume that the male will not contribute to parenthood. Rather, the key word is 'discrimination'. Also referred to as 'choosiness', the behaviour of accepting certain partners while rejecting others has a vibrant history of scientific discussion stretching right back to Darwin himself (See Milam's recent monograph *Looking for a few Good Males: Female Choice in Evolutionary Biology*. Milam refutes the common story that the topic practically vanished between Darwin and Trivers). Most interestingly, it has more recently been a certain centre of attention for feminists, criticising the sexist stereotype that choosiness is simply a female trait (See Gowaty (2003) for an excellent discussion of the literature). Indeed, such is one further assumption we can shed before moving on to Dawkins' other strategy.

The simple meaning of the ‘domestic bliss strategy’ is, in Dawkins’ words, “to play hard to get for a long time, to be *coy*.” (p. 149, my emphasis). Here we finally arrive at the magic word, ‘coy’. To hammer home my point, I would like to turn to another authority: *The Shorter Oxford Dictionary*, which defines coy as “displaying modest backwardness, shy; [specifically] (of a (young) women) unresponsive to amorous advances...” (def. 2) The keyword here is ‘unresponsive’, which says nothing itself about being discriminating in mate choice. It can assume that the subject has already chosen and even has no plan to change his or her mind. Dawkins’ discussion is brilliantly consistent with this, while unfortunately Vandermassen’s is not, because she assumes that ‘discriminating’ is sufficient to serve the purpose of the word coy. Discriminating and choosy are both fine culturally neutral terms suited to professional literature, but they do not cover the specific meaning of coy. As a matter of fact, I am unaware of any culturally neutral alternative for it at all. This both explains and stems from the fact that certain literature still uses ‘coyness’ as an operative term, because these scientists are dealing with a concept which has yet to be sufficiently policed by feminist biologists. I mean that in a positive way, and am critical of these scientists for letting this unhelpful term persist. For the following discussion, I shall use the term ‘copulatory delay’ to replace the ‘coy’ in Dawkins’ ‘domestic bliss strategy’ which I use simply as a starting point. It is strictly ‘copulatory delay’ whose theoretical dimensions I will now outline.

Before dealing directly with copulatory delay, it is necessary to understand the issue of fidelity. Recall that the underlying problem behind courtship is the possibility of a partner leaving its mate to rear its offspring alone, in order to produce more offspring. Three factors can be identified in such a decision. First, there is the classic ‘parental

investment' factor normally made to predict male infidelity due to the abundance of sperm and freedom from gestation and lactation. Second, there is the genetic quality of the partner: it may make better sense to personally invest in the care of a *quality* offspring than to simply produce a larger *quantity*, thus rendering fidelity a logical option for the male. Third, there could be limitations to, and/or significant effort involved in, the processes of both courtship and mating itself. Even if genetically beneficial, looking for a new partner may not be such a tempting option after an exhausting bout of reproduction. This possibility obviously applies where breeding is seasonal.

The first principal of copulatory delay is that, depending on the circumstances, it may to varying degrees be considered independent of choosiness. If every moment of withholding copulation bares a considerable risk of losing a mate, then doing so effectively acknowledges the possibility of ending up with another. In this case choosiness and copulatory delay can be considered inseparable. At the other extreme, if a mate can be counted on with certainty to remain patient, then eventual mating is a given, and copulatory delay becomes a tool unrelated to any selection process. This takes us back to Dawkins, who distinguishes between two different versions of the 'domestic-bliss strategy'. The 'simplest' one works like so:

Any male who is not patient enough to wait until the female eventually consents to copulate is not likely to be a good bet as a faithful husband. By insisting on a long engagement period, a female weeds out casual suitors, and only finally copulates with a male who has proved his qualities of fidelity and perseverance in advance. (p. 149)

Here, copulatory delay functions as a form of assessment. Assessment means that the subject has not yet made up its mind, and as such copulatory delay is reduced to a mere

mechanism of choosiness, against the distinction I am stressing. Now to the second version of the domestic bliss strategy:

A male who waits for a coy female eventually to copulate with him is paying a cost: he is forgoing the chance to copulate with other females, and he is spending a lot of time and energy in courting her. By the time he is finally allowed to copulate with a particular female... [t]here will be little temptation for him to desert her, if he knows that any future female he approaches will also procrastinate in the same manner before she will get down to business. (p. 150)

This time copulatory delay is functioning, not as assessment but rather manipulation. Manipulation means the subject *has* chosen its partner, and delays coitus as a means to an end within the boundaries of the relationship. Dawkins' focus in both cases is fidelity.

Now, let us theoretically extend copulatory delay, both as assessment and manipulation, beyond the concern of fidelity. As assessment it could allow access to more detailed information about the direct and indirect benefits of mating with the individual in question. Indirect (genetic) benefits could be deduced by observing activities such as predation. Direct (parental) benefits could be assessed by testing the quality of parenting behaviour (as distinct from the willingness to parent at all, which is identical to fidelity). In discussing 'feminine coyness' Dawkins gives the example of the female bird begging and being fed like a hatchling by the male. This behaviour could allow the male to demonstrate his dedication and/or competence as a parent. As manipulation copulatory delay could also make an effective threat against unwanted behaviours, most obviously aggression. While this is fairly speculative, it would not be unprofessional to remind readers of what is commonly referred to as the 'power of the

pussy’, i.e. the potential of the human female of using copulatory delay as a persuasive device in a male decision. The prospect of sleeping on the couch can generate enough fear in some males to concede to otherwise obnoxious requests.

To sum up, copulatory delay can function as assessment or manipulation. Assessment reduces it to choosiness while manipulation acts independently of mate choice. In either form it can be used to protect against parental disloyalty, and can work to ensure other qualities in a (future) partner. It may be helpful to visualise the concept as a matrix with two axes:

	Assessment (before relationship)	Manipulation (within relationship)
Fidelity	Assessing likelihood of potential partner’s infidelity i.e. leaving the subject to rear the offspring alone.	Preventing infidelity by providing partner with an incentive to stay.
Other factors	Assessing pros and cons of accepting mate: genetic quality and agreeable behaviour.	Punishing or threatening to punish bad behaviour such as unnecessary aggression.

We can now see that it is an obvious mistake to treat the word coy as simply a biased word interchangeable with ‘discriminating’ or ‘choosy’. Two further points demand to be made about ‘coyness’, or rather copulatory delay, both concerning the confusion of words. Firstly, it should be very clear that there is absolutely nothing ‘passive’ about it. Whichever sex has the benefit of copulatory delay is calling the shots; he or she is the one deciding when, if at all, copulation occurs, while the other can only wait for the opportunity or leave. It is an explicit case of purposeful agency on the part of the ‘coy’ partner, which, if anything, can render ‘passive’ only the other partner whose access to reproduction remains outside of his or her control. To put it the other way is simply

bizarre. The second thing to note about copulatory delay is that it says nothing, necessarily, about sex-drive or libido. Whether it is envisaged as a learned behaviour or an instinct (minding the dichotomy), there is no reason to assume that the level of 'desire' is any less than that of the other partner. Behaviour can be very independent of biological drive, sometimes even irrationally so. The 'coy' female does not necessarily want to copulate any less than the 'ardent' male, but in terms of behaviour she shows otherwise. The belief in 'ardency' as a characteristic male feature is blatantly Victorian and unparsimonious, inasmuch as it is assumed from a comparative lack of 'coyness'. For this reason, the mere juxtaposition of 'coyness' and 'ardency' in scientific literature is dangerously misleading. Perhaps there are often sex differences in sex-drive, and in that case 'ardency' is technically correct, if a little emotive. But it represents an issue quite distinct from that of 'coyness', which will remain less obvious as long as the word persists in the literature.

Up until now, I have not been attributing choosiness or copulatory to the female, in contrast to Dawkins. Nor have I been thinking generally of any particular species or larger animal grouping. But the relevance of this discussion to human experience is obvious, and an issue I would like to deal with. For some, the application of animal behaviour principles to humans comes quite easily. For others, it seems to be 'reductionist'. I have in mind the comparative approach to humans, which means treating us as a species like any other. Since we share our ancestry with all other mammals for example, the relevance of mammalian behaviour to our own makes methodological sense, if not immediate 'common' sense to the layperson. But is such an approach

necessary when human behaviours can be easily attributed to other causes, such as social construction?

It must be remembered that as scientists, we are first concerned not with the range of behaviour as occurs in the animal kingdom itself, but rather with the range of behaviour *observed* to occur in the animal kingdom. It is accurate, more or less, to state that the range of observed behaviour within the human race is far broader and more dynamic than that of any other species, and the nature of the behaviour more complex. However, this is NOT because humans are necessarily unique or especially complex. Rather, it is a product of the necessary difference in observation one should expect given the special privilege we have of belonging to the human species. Humans are the one species unquestionably endowed with a special, if not perfect, ability to interpret human behaviour, giving us observational advantages toward human subjects. When we observe rats, for example, we are denied this advantage, which can now only be granted, theoretically, to a rat. Indeed, it must be assumed that from the rat's perspective, it is the range of observed behaviour of the *rat* race (no pun intended) that is most broad and dynamic, and the nature of behaviour most complex, within the animal kingdom, including humans.

With this in mind, it seems warranted to grant that humans should not be reduced to the same explanatory principals as other animals; not because other animals are simpler, but because our tools for understanding them are much more limited. However, a distinction must be made here. I only say that human behaviour, or more correctly, the extent of human behaviour observable to humans, should not be *reduced* to the comparative framework. That is not to say that this framework is *irrelevant* to human

behaviour. On the contrary, it is a reasonable approach wherever human behaviour is shared with other species. This is a crucial point. A century and a half since Darwin, even many of those who accept evolution still take little interest in putting human behaviour in the broader context of behaviour as a whole, e.g. Mammalian behaviour, even though this is the logical conclusion of accepting our common ancestry.

Occam's razor states that, all other things being equal, the simplest explanation is to be preferred. Choosiness and copulatory delay in females is a behaviour that humans share with many other species. A biological explanation can theoretically apply to any species, human or not. Including human beings in such an hypothesis is far simpler than producing an alternative answer which only applies to humans. In other words, it seems to go against probability to claim that while human females may behave the same way as the females of many non-human animals, human females happen to do so for a completely different reason. An exclusively *human* explanation is suitable for an exclusively *human* behaviour; it makes little, if any, sense to apply it to a common *animal* behaviour. To state it simply, if a given behaviour is uniquely human, then the application of conventional naturalist explanation is probably excessively reductionist, and something like an appeal to social construction should be preferred. If it is rather typical of family, order, class etc. then an explanation from social construction is probabilistically challenged and fundamentally illogical, and a comparative approach makes much better sense. It must be said that this principle itself is in no theoretical way unique to humans. As I have explained, we have a necessarily advanced perspective in regard to members of our own species. If there were scientists amongst otherwise normal

rats, I dare say they would know enough about rat behaviour to identify cases where logic and Occam's razor legitimate a more unique explanatory framework of their own.

Now that I have covered the human/animal question, I would like to finish off with a comment on one important aspect of Dawkins' argument. It concerns the manipulation function of copulatory delay. As noted above, Dawkins' discussion draws largely from Trivers, but Dawkins makes a very innovative adjustment. Recall the quoted argument that the significant investment made by the male before copulating can give him an incentive to remain with the female afterward and share the task of parenting. Dawkins explains a logical fallacy in Trivers' thinking:

He thought that prior investment in itself committed an individual to future investment. This is fallacious economics. A business man should never say 'I have already invested so much in the Concorde airliner (for instance) that I cannot afford to scrap it now.' He should always ask instead whether it would pay him *in the future*, to cut his losses, and abandon the project now, even though he has already invested heavily in it. Similarly, it is no use a female forcing a male to invest heavily in her in the hope that this, on its own, will deter the male from subsequently deserting. (p. 150, his emphasis)

By shifting the emphasis from past losses to future losses Dawkins recognises that the probability of any given female demanding the same price for copulation is crucial. This leads him to game theory.

This shift in emphasis appears to have been universally accepted by those following his work. But is it entirely beyond challenging? Within a certain framework it appears so. Think carefully about that phrase 'fallacious economics'. It reveals one of the distinguishing features not only of Dawkins' 'selfish gene' thinking, but more generally

of sociobiology. According to such thinking, since the evolution of behaviour ultimately answers to natural selection via the gene, its very nature has to be thoroughly rational and economic. Therefore, a logical fallacy in an animal's strategy or decisions is the same as a logical fallacy in behavioural evolutionary theory. Behaviour is driven ultimately by bottom-line economics where error can not afford to survive.

But a psychological perspective, working explicitly against sociobiological rules, offers an interesting challenge to Dawkins' correction of Trivers. It begins with the admittedly anecdotal observation that the economic fallacy committed by Trivers appears to be one of the many cognitive illusions that drive human behaviour. Good businessmen aside, is it not normal to want to finish a lousy cocktail just because you have already paid for it? Prior investment can have a huge hold on us, and can potentially supersede the greater logic of future costs and benefits. This is irrational behaviour, but humans did not evolve to be rational in the first place. Neither, we can only assume, did any other animal. This brings us to the big question: what if Trivers' fallacy is not only typical of his own species but of many others as well? Does it not make sense to imagine that an animal, having laboured painfully and extensively, would have some sense of prior investment, sufficient to render exceedingly irritating the prospect of throwing it all away? It could easily come as naturally to them as it does to us, and probably by the same underlying cause. And so this provides a cognitive, rather than game-theoretical approach to understanding copulatory delay as manipulation against disloyalty. This is quite ironic, as it tells us that Trivers, in his mistake, may not have been so mistaken.

References

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