

*Theory of Bastards*¹

The main character in *Theory of Bastards* is Frankie; the most important part of the story concerns her relations with a group of bonobos and with her fellow-scientist Stotts. On the way we learn a lot about pain (she suffers severely from endometriosis); how to beat the US medical system, or at least cope with it; science and how experiments are devised; relations among sexual attraction, love, and having illicit affairs (the nub of Frankie's theory of bastards); affinities and differences between humans and bonobos; and in general, in all kinds of ways, how complex relations among people (primates) are – relations as the scene of so many demands and responses, signals and messages understood and ignored, attractions and encroachments.

The text begins with Frankie's arrival at a primate research station in Kansas. She is a young but already distinguished researcher into evolution and sexuality. She is still in a lot of pain, recovering from a hysterectomy that has finally alleviated her endometriosis. She has learnt to be tough. There are flashbacks into her earlier life, dominated by her illness and the pain that accompanies it, marked by smug misdiagnoses from a succession of doctors, an experience which eventually teaches her how to get her own way with doctors - by threats and blackmail if necessary - and eventually, when she succeeds as a researcher and wins a Macarthur fellowship, finance her hysterectomy. We also learn of her love affairs, ruined by the disease (which makes sex painful), and this double track shapes the novel. There is the inventive, unorthodox, persistent researcher into the evolutionary aspects of sexual attraction, now studying how it works among bonobos. There is the woman whose difficult love life stutters along at the same time, from her early affair with her professor, to her time with the amiable Jayjay, to her feelings about Stotts, the laconic polite Midwesterner who has been assigned to help her at the institute, while he also conducts his own research.

The contrast between his research and hers makes a quiet joke about males and females: he is attempting to teach a male bonobo how to knapp a piece of rock to make a flint tool, and is getting nowhere; she is watching and observing the – very active and apparently indiscriminate – sex life of the bonobos, and developing a theory based on the hypothesis that females from time to time seek a secret conjunction with a male, an affair in effect. Stotts instructs, Frankie observes.

The double track makes an advance in sf depiction of science because it catches the flows back and forth between scientific objectivity (collecting data, arriving at a hypothesis, treating the subjects impersonally) and the emotional life of the researcher, in this case, her memories, her experience of the endometriosis which has shaped her personality and her attitude to institutions and authorities, her previous experience of love and sex, her changing feelings

¹ Audrey Schulman's novel *Theory of Bastards* (NY: Europa, 2018) is referred to a number of times in *Apocalypse in Crisis*. It's a witty, perceptive book that deserves more readers and more discussion. This piece gives more detail on how the novel makes use of an apocalyptic disaster to deepen what it has to say about human and primate nature, sex, and survival.

about Stotts. It reflects Schulman's reading in primatology, especially Frans de Waal and his critique of over-objectified attitudes to research on the intelligence and the emotional capacities of primates.²

This treatment of scientific work also responds to the current situation in which truth and objectivity are disputed and befogged on all sides. The novel tells of a love affair, a romance, as very many novels do, but it acknowledges that to do this now we need to discuss and investigate the topic because there is less agreement on what love is and what humans are like – what exactly does sexual attraction do, in its various guises, and what kind of creature is the human primate who is experiencing it, as well as (in this case) researching it. The assumptions and questions need more explicit airing nowadays. The novel doesn't bother with the by-now standard contemporary worries about whether truth can be arrived at and agreed upon, but it knows that nowadays we cannot rely on assumptions and agreements to the extent that (arguably, at least) we used to do. The consequence here is not metafictionality, play with simulation, or emphasis on fallible subjectivity: Frankie is very definitely an individual with her own quirks and habits, but she is a reliable observer; and in addition there is no doubt whatever about the pain she suffers, and eventually, after she gets a competent diagnosis, there is no doubt that it is caused by endometriosis;³ the consequence in *Theory of Bastards* (as with Kim Stanley Robinson in *Green Earth*) is explicit investigation, discussion, direct engagement with the forming of theories and explanations.⁴ (*Green Earth* also combines the telling of a love affair with reflections and speculations about what love and sexual attraction are, in humans as a species of primate.) Sf has always offered explicit discussion and investigation, though very often it has come in the form of the authorial voice setting out confident explanations or the text presenting an exposition rather than an investigation (for instance in Andy Weir, *The Martian*, a very successful example of the type). In *Theory of Bastards* the approach is less direct, more ironic, but also sometimes comic. This arguably happens in response to (and as part of) the zeitgeist, which in chaotic seemingly unmanageable forms from Hayden White to Donald Trump is telling us we had better devise more sophisticated narratives of the quest for truth in the midst of emotion and fallibility (not to mention lies).

Frankie and the Bonobos

Frankie finds the bonobos challenging. They are matriarchal – Mama is the boss, males obey females and wait for the females to eat before they eat. Bonobos are gentle, constantly touching and grooming, not carnivorous (the contrast in the novel is always with the chimpanzees that are also at the research

² In her Research Appendix detailing her reading Schulman recommends *The Ape and the Sushi Master* (399-400); I recommend *Primates and Philosophers* and *Are We Smart Enough to Know How Smart Animals Are?*

³ - Though the doctors won't listen to her account of her symptoms, and so won't treat the disease she actually has, and eventually she has to lie and deceive to get adequate painkillers.

⁴ There is an extended discussion of *Green Earth* in chapter 9 of *Apocalypse in Crisis*.

station). They have sex each time food is offered them, before they eat, and they do this, apparently, indiscriminately, regardless of gender and with no sign of purposeful choice of this mate or that. This indiscriminate sexual alacrity is in comical contrast to the slowness and hesitations of Frankie and Stotts's coming together. – It is also relevant, though not mentioned by Shulman, that bonobos in the wild don't have group sex before eating – they don't need to: the custom has grown up among bonobos confined in captivity, where the sudden appearance of food might give rise to fights. So the researchers are not studying bonobo behaviour tout court but bonobo behaviour in captivity.

Frankie has come to the institute to pursue her theory of bastards, that is, that there is an evolutionary advantage in a female mating not only with her regular partner (who was chosen as a reliable carer and provider) but with another, wilder partner. The latter is hypothesised to be one to refresh the gene pool with his qualities (different from those of the regular carer and provider). *Theory of Bastards* provides us with some fascinating evidence for this as regards humans: the figures show that bastards succeed a measurable bit better than legitimate offspring (so we are told); they also suggest that women underplay the number of sexual partners they have had, and this, according to Frankie, may well be because the affairs that enrich the gene pool need to be secret.

The novel doesn't investigate try to estimate the effect of changing attitudes to marriage and divorce, which mean that people who have affairs often end up divorcing their spouses and marrying the partner in the affair, so that the lines that the theory draws between regular, responsible partners and wild, refreshing partners become blurred. So we have a new look at an old theme, classical in the novel, the explosive power of adultery. It is set in a broad, sociobiological context, which is why Frankie can then investigate whether it might apply to bonobos. In this very broad temporal and species context, changes in patriarchy and sexual morality whereby it is easier to have multiple partners at once, or in succession, or with members of the same gender, and changes that lessen the need for secrecy in an affair that is against the social rules, don't need to figure. The indictment of patriarchy can be carried by the strand in the novel that deals with the smug, insensitive and unscientific responses of male doctors to Frankie's endometriosis. (Is it because this part of the novel has this function that, strong and assertive as she becomes, she doesn't find herself a female doctor, who might have been more likely to listen to her and provide a better diagnosis?)

But the bonobos present a research problem, and a social problem. There don't seem to be many rules or patterns to their vigorous sex lives. Meanwhile, they by no means present as passive subjects of research. They are physically strong (stronger in short bursts than humans are, as an early scene makes clear), intelligent, capable of some sign language, and for a long time their alpha female, Mama, refuses to let Frankie inside their enclosure, a permission she needs so that she can see everything that is going on among the group. Eventually she gains the permission by quelling a couple of visiting youths who are kicking the glass wall of the enclosure, in response to Mama's laconic signal from inside the enclosure that she should do something. She begins to make progress – it appears that one of the males, Sweetie, is having furtive sex with various females when the others are asleep, or out of their sight.

In It Together: Consequences of Disaster

Then comes a dramatic change, and one which launches the novel on a new course. Here some features of the novel's near future society need to be specified. Electronic devices have become even more pervasive and humans have become much more dependent on them. Indeed it appears that humans and electronic devices have become symbiotic, because the devices are now implanted, respond to voice commands, and seem highly competent. They have also become all-engrossing, like phones now; there are scenes where the adults who have brought their kids to view the apes are too involved with their implants to bother actually looking, though the kids do look. Meanwhile, there are signs of ecological decline and crisis – desertification (no crops in Kansas anymore), big dust storms requiring evacuation. As is the case today, dazzling advances and unchecked declines happen at the same time.

A big dust storm is predicted; most of the staff, and the inhabitants of the district, are evacuated. Frankie refuses to go, and she stays behind with a skeleton staff, including Stotts, to look after the bonobos (there are also gorillas and chimpanzees in their own enclosures, to be cared for by others). The dust arrives, but then all electronic devices go haywire, not only the implants but those that control virtually all machines and appliances. The vents to the bonobo enclosure open and let in the dust, refrigerators and freezers become hotter and hotter and their contents rot, personal implants fail and die, the 3-D printers that usually manufacture tasteless food for the bonobos won't work. The bonobos have to be removed from their main enclosure because of the dust, and there are chaotic scenes when they roam the back rooms (kitchen, offices and so on), exploring, playing, breaking things, endangering themselves. Frankie and Stotts must make lightning calculations as to what to remove and seal up. They have to behave responsibly and protect the bonobos from their own energetic curiosity, but they are not really in charge. It's a bit like the way parents can be enslaved by their kids.

Things settle down for a while. The primates and their human keepers become like castaways, isolated and improvising. Clothing has to be improvised because the heating is off and the bonobos suffer from cold; food starts to run short and the staff have to forage and to offer the bonobos food they would never ordinarily eat. The bonobos are still dependent on the humans, because they have lived their lives in the enclosure or in some cases had a time in human households,⁵ but the dynamics are changing. The bonobos are much more active, stimulated by their new situation and by the proximity of the humans, in whom they are uninhibitedly interested. Frankie and Stotts must accept roles that reflect the positions of females (superior) and males (subordinate) in bonobo society, and in addition individuals form attachments to them – Houdina (female) to Stotts, and Goliath (male) to Frankie. Humans and bonobos start to blend, sleeping together in a messy pile, wearing the same silly collection of scrounged clothes.

This new equilibrium doesn't last. The dust storm ends but no help arrives; none of the evacuees return. It gradually becomes clear that there has

⁵ Karen Joy Fowler's *All of Us are Totally Beside Ourselves* treats the situation of a chimpanzee reared in a family and the painful consequences for both chimpanzee and family.

been a disaster of very wide, though unknown, extent. Food runs short. They will have to leave the compound and find food elsewhere, running the risks of whatever is going on in the outside world. Stotts and Frankie will go with the bonobos, and the chimpanzees, meat eaters, will have to set out in a different direction since otherwise they might prey on the bonobos. It is now becoming clear that something very serious has happened to the world in general, not just Kansas, and that it is connected to the complete electronic breakdown. They come across the remains of a crashed plane and learn that it must have fallen from the sky at the exact moment the various devices failed. Stotts becomes anxious and withdrawn – his wife and daughter are in England for treatment of the child's asthma (a much more serious disease in the time of dust storms). Frankie is more and more attracted to him, and they have come to know each other very well in the stress of emergency and improvisation.

The bonobos are not easy to shepherd as they attempt to trek east (in the direction of Stotts's wife and daughter) and, edged by Frankie, south, towards warmer climes for the bonobos. The bonobos like to wander, explore, play. They settle for a slow pace, moving from one deserted house and its miscellaneous leftover food stocks to the next. There are ominous signs and Stotts (a veteran of this world's war in Syria) acquires a rifle. The chimpanzees catch up with them – no sign of their human minders – and attack. Mama is killed, and the result of this is that Frankie in effect becomes the matriarch. The remaining bonobos drag the corpse of Mama along with the group for some days. This refusal to recognise death reminds us that the bonobos are different from humans,⁶ but then again Stotts is in his way also stubbornly resisting the likelihood that his wife and daughter are dead. Yet Frankie's desire for him has kept growing, and they have become closer. Were they to have sex, this would illustrate Frankie's theory. It's not easy, however, since both are very aware that Stotts is married, and Frankie is in fact insisting on the possibility that his wife and daughter could still be alive, as a way of encouraging him not to despair – and also because humans like to do it in private and (compared to other animals) take a good deal of time to come off, whereas the bonobos do it in public and are inquisitive about human sex, so Frankie and Stotts find privacy hard to achieve. But they eventually succeed.

This is where the novel ends. Perhaps they will make it to the south, be able to settle the bonobos in a suitable environment, and set sail for England. Probably not, because there are groups of armed survivors about and they are in enough numbers to suggest that the future will be uncertain both for Frankie and Stotts and for the bonobos. Living from day to day is what they have had to do since the storm hit and the implants ceased to function, so this will continue. The bonobos are now companions rather than research subjects, and Frankie and Stotts, and Sweetie and his secret lovers, are going to exemplify Frankie's hypothesis while she will be in no position to write it up, and will have no desire to do so, since she enjoys living from day to day. The project of making or getting a boat and sailing to England, which is what now keeps Stotts going, is hardly a practicable one, but it is also a sign that humans, creatures of memory and foresight, still need to live for more than day to day.

⁶ The behaviour – dragging along the corpse of a dead baby, for instance - has been observed in monkeys.

Considered as an apocalyptic novel, *Theory of Bastards* is interesting because of this particular situation it puts the survivors into. It doesn't follow the formula whereby the post-apocalyptic scene is dominated by primitive violence and a return to tribalism, with maybe a mad prophet or dictator in charge (as in one part of Thomas M. Disch's *The Genocides*, or in the way the society revolves around the hunger games in the trilogy of that name). The primitive is redefined, or refuted, in that the bonobos are intelligent and are subjects rather than passive objects, and in that the humans and bonobos become a single primate band after the disaster, with a distinct hierarchy and roles, with Frankie as matriarch: not at all like the usual post-apocalyptic tribe or war band. This is a kind of freedom, as is often imagined in recent apocalyptic fictions, a release from some of the restrictions of civilization – the contrast between the Frankie of the beginning of the novel, shrewd and tough but so crippled by pain that she can't walk, and the Frankie of the end of the novel, active and capable, and at last likely to have an enjoyable love affair, underlines this. But on the other hand all Frankie's observations after the collapse confirm her theory, so the science that occupies so much of the earlier part of the novel is vindicated, even if there is no way for Frankie to write up her conclusions. This outcome of the science fiction is ironic, but this fits the whole attitude of the novel. Frankie is a talented scientist and a feisty person, and pomposity and complacency, including that of scientists, is often undermined in the novel. In this respect Frankie in *Theory of Bastards* resembles Marianne in Angela Carter's *Heroes and Villains* (see chapter 4 of *Apocalypse in Crisis*): a feisty and restless woman is put into a post-apocalyptic world, so that we get a fresh and unconventional angle on that world.