

Preface

Sexually reproducing animals are faced with various challenges in order to find, approach and copulate with a mate in reproduction, achieve fertilisation and finally ensure that the offspring survive and in turn reproduce. In social species, this whole process includes additional dimensions involving sometimes intricate relationships of competition and cooperation; further contributing to the overall complexity. Reproduction is central to the survival of the lineage, its suppression leads to extinction. As a consequence of this basic tenet of evolutionary biology we are obviously bound to be puzzled by the emergence of behaviours such as same-sex sexual intercourse, and by the occurrence of exclusively homosexual individuals. Homosexuality is indeed an evolutionary paradox, but one that can be resolved within the broad framework of the theory of evolution itself, after we take into account the many variables and scenarios that make homosexuality likely to be expressed in the first place and then maintained across generations.

In this book the reader will discover that we humans are not the only mammal species that expresses exclusive homosexuality and that some of the evolutionary processes that may explain the emergence of homosexual attraction in humans may be common to other sexually reproducing species as well. More importantly, it will be also shown that across taxa same-sex sexual behaviour is pervasive in the context of bisexuality and its expression takes modalities that can blend in the same individual, whether male or female, characteristics that are both feminine and masculine.

It is very unlikely that the evolutionary paradox of homosexuality will be resolved by appealing to a single cause or mechanism. On the contrary, this book provides both empirical evidence and theoretical arguments to support a scenario of multicausality for homosexual behaviour. Based on the available comparative evidence, the conclusion is that homosexual behaviour can be broadly understood in the context of adaptive evolution and therefore it is not a malfunction of sexuality. The various dynamics of human homosexuality can be also explained, to a great extent, adaptively, whether as mediator of social cooperative or competitive interactions or as a side effect of selection for traits such as high reproductive rates, high mutation rates and others.

A complex brain produces sexual behaviour that is especially plastic in our species, but we are not the only vertebrate exhibiting plastic sexuality. Other primates, but also rodents, various social mammals and some bird species express intimate sexual contacts between members of the same sex on a regular basis and they do so following complex and dynamic patterns, as part of their normal and evolutionarily adaptive behavioural repertoire.

The aim in this book is to convey not only a sense of wonder when faced with diversity and

complexity, but also a sense of reassurance that such complexity can be integrated in an evolutionary synthesis. The challenge is not only to explore as many as possible of the various dimensions that define the expanse of homosexuality and its levels of causation, but also to cross the boundaries between various disciplines, each contributing unique information on the many specific aspects of sexual orientation. In the process, the limits and barriers imposed by political ideologies, barriers that tend to hinder rather than foster our understanding of sexual orientation, have been intentionally ignored.

This book was written in a somewhat asymmetrical partnership, with Alan Dixon mainly contributing one chapter and many insightful suggestions for the improvement of the other chapters, which were written by Aldo Poiani. The author of each chapter takes personal responsibility for what he writes by using the first-person singular. Finally, during the production of this book I tried to achieve the rather ambitious objective of both ranging wide across the many aspects of same-sex sexuality in various taxa and also digging as deeply as possible into each one of those aspects. I can only hope that the results of this effort may both inform and inspire the reader.