Conclusions

What have we learnt?

The origins of our uniquely human emotional connection are rarely central to any discussion, as we have seen in the Introduction. This is, perhaps, at least in part, because our human emotions are all too often seen as a weakness, particularly as they may prompt us to behave in ways that may seem against our rational self-interest. Certainly, our emotional connections to others can make us vulnerable in certain ways. Compassion may prompt us to expend precious effort helping others, our need for belonging makes us vulnerable to loneliness, and our emotional sensitivities make us prone to suffer in many different ways. However, rather than being weaknesses, we have seen that it is in these vulnerabilities that an unrecognised shared human strength lies. Only if we feel moved by others' pain or plight will we be motivated to respond to our vulnerable young or care for adults needing our help. Only if we feel moved by strangers, and care about their wellbeing, will we be motivated to extend our world to form communities, and to connect in new ways to animals and things around us. Only if we are sensitive to the animals, as well as the people around us, will we be able to make new emotional connections. Without our uniquely human emotional connections we would not have thrived as a species.

We have seen, throughout our discussions, that our human ancestors were more emotionally sensitive than our current interpretations of human origins allow for. Today, we know that we care deeply about the wellbeing

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Spikins, P., 2022. *Hidden Depths: the origins of human connection*. Pp. 433–442. York: White Rose University Press. DOI: https://doi.org/10.22599/HiddenDepths.k. License: CC BY-NC 4.0 of people close to us. As we have seen in Chapters 1 and 2 of Part 1, this remarkable depth of human motivation to help others comes from a very distant past, set within pressures to become more collaborative early on in our evolutionary history. We are also acutely aware of how others feel and think about us. As we have seen in Chapter 3 of Part 1, this sensitivity comes from the significance of relationships based on trust and the increasingly significant importance of our social moral reputation in others' eyes. We are also, above all, profoundly emotionally vulnerable. Not only are we vulnerable to emotional disorders, as we typically conceive of them, but, more than this, as we have seen in Part 2, we are sensitive to the damaging effects of loneliness and isolation. We only thrive in contexts of genuine care and connection, and seek out new forms of emotional connection whenever and wherever these may be lacking. As we have seen in Part 3, our peculiarly acute emotional sensitivities were in no way predestined but rather one option of many, a road that we might easily not have taken.

The significance of emotional vulnerabilities and sensitivities to the strength of our human connections is, in many ways, not a popular narrative. It would be far more comforting to see ourselves as individually resilient. However, the converse is perhaps a more realistic view. Our sensitivities and emotional vulnerabilities are not simply key to who we are as humans but are also a defining feature of our evolutionary success.

Through the chapters of this volume, we have also seen that changes in emotional capacities, rather than primarily intelligence or brain size, were far more significant to our evolutionary story than has been recognised, and were likely to have been a driving factor in two major transitions in human evolution.

Changes in emotional relationships within groups, rather than in rational thinking abilities, are, here, seen as key to the emergence of the genus *Homo*. This key transition occurred after 2 million years ago and involved movement into a new ecological niche dependent on collaborative hunting and collaborative infant care, as well as on care for illness and injury. Increasing brain size in this period is here argued to be an adaptation to the complexities of new relationships based on trust and emotional responses to vulnerability within a context of small and highly collaborative social groups, rather than some predetermined element of our hominin

past. Furthermore, the driving factors behind key transformations are changes in emotional connections, allowing new commitments to both individuals and to whole groups. Moreover, this key transition is related to changes in emotional tendencies and capacities that brought early humans closer to highly collaborative social mammals, rather than elevating them above nature.

When it comes to the more recent transition around the emergence, and subsequent expansion, of our own species in Africa, after 300,000 years ago, it is once again changes in emotional capacities, rather than hard elements of cognition, that play the most significant role. New levels of intergroup tolerance make new types of connections between different groups possible, buffering local shortfalls in resources and providing a mechanism for the spread of innovations. Reduced stress reactions and heightened social sensitivity open up a window for new externally focused relationships whilst also bringing new vulnerabilities to loneliness or a lack of belonging. As in the earlier transition occurring after 2 million years ago, rather than being extraordinary, these changes in emotional dispositions are also seen in other highly social species.

Here, we argue that these two transitions were situated within changes in ecology, and responses common to other species, rather than some human exceptionalism. Adaptations in emotional disposition towards a broader response to vulnerability and emotional investments in the whole social group are argued to play a key role in changes in social relationships that occur in the emergence of genus *Homo*, much like similar adaptations in social carnivores. In turn, changes towards more externally tolerant emotional dispositions are key to the emergence of our own species, much like transformations seen in species that become more tame. Of course, complex technology, language and culture must have played a role in these transitions. Nonetheless, without the transformation in social relationships brought about through changes in emotional dispositions none of these developments would have been possible.

What makes this interpretation different?

This is not an interpretation that necessarily fits neatly within accepted narratives of human origins. Firstly, this is no neat progression towards some pinnacle of adaptation. Changes occurred in a series of stops and starts. Some elements of what we recognise as our most human emotions appeared early in the evolutionary record: our response to vulnerabilities in those we love; our willingness to take risks on behalf of others; our sensitivity to the wellbeing and development of infants. Others occurred much later, and we argue here that what we recognise as our human capacities to extend care and altruism towards strangers, to develop caring connections across distant relationships, emerged much later and more recently.

Secondly, the past is here seen as a series of branches and connections rather than steps along a ladder. Whilst members of the genus *Homo* travelled their own emotionally collaborative branch, other hominins, such as the paranthropines, equally viable for over a million years, were less interdependent, and were less dependent on hunted or scavenged meat. Likewise, in their different ecological conditions in Eurasia, other archaic humans such as Neanderthals were under less selective pressure to focus outwards emotionally and, in turn, were perhaps even more committed to caring within their close-knit groups. By implication, our evolutionary past may have been different ecological situations. We might, for all we know, in a different evolutionary past have become less dependent on others around us for a sense of belonging or emotional support than we are today, be less interested in what lies outside our own small social group, or be different in all kinds of ways.

Thirdly, in this evolutionary history, changes in emotional capacities brought us *closer to*, rather than *further away from*, other animals. Changes, firstly, in our response to vulnerability and, secondly, in our friendliness toward strangers, are key to what makes us human. However, they do not make us further away from other animals or nature in general. Rather, these are shifts in focus, and ones that in many ways bring us closer to other animals.

Perhaps most significantly, an emphasis on our emotional minds as central to our evolutionary history is relatively new. No one would argue that language, technical intelligence or our highly complex culture are not significant in our evolutionary history, nor that they are not key elements that mark us as different from other animals. Yet these capacities have been given priority in our evolutionary story for far too long. Our emotional minds, and the role they play in our human connections, may be more important *to the better part of our natures* and, as such, deserve greater attention in our evolutionary story.

Some of this may feel challenging.

The emphasis we see here on the biological basis for emotional motivations and their influence on behaviour may feel uncomfortable, particularly amongst those who might argue that emotions are a product of culture and not biology. Here, again, no one would deny that conscious choice or accepted cultural norms play an important role in how we behave, or that rationality is key to how we think, or that emotions are affected deeply by individual and social circumstance. Our physiology, emotional capacities, thoughts and cultures interact with each other in complex ways. Emphasising the influence of the biological basis of our minds on who we are is not to see this as a predetermined genetic blueprint but to recognise that rational thought is grounded in physical experiences and incorporates feeling, and that the biological basis of our emotions play a role in who we are as humans.

The concept of distinct, and emotionally different, hominid branches as largely equal options, surviving or declining often through the vagaries of chance, can also feel disconcerting. Whilst we used to view Neanderthals as inferior, and now feel more uncomfortable in doing so, it has instead become fashionable to see them as so similar to ourselves as to be effectively the same. Responding to the challenge of difference by denying it is, however, too easy. The difference we outline here between Neanderthals and modern humans, related to emotional capacities and tendencies, may not be related to intelligence or culture. However, to consider this difference as about equally weighted options, much like those we see between relatives in canids or non-human primates may, nonetheless, create tension. Yet, the existence of different evolutionary branches and different possibilities for humans in the past seems important. It adds even greater weight to the argument that we need to be better at understanding not just how other species can be equal but different, rather than simply the same as ourselves, but how this holds true for other *people* around us as well.

A more nuanced appreciation of diversity is also key to the portrayal here of autism, and other elements of cognitive difference, not as disorders as much as adaptations to new collaborative moralities in which different individuals fulfil different roles. An autistic mind is different, but not better or worse, than a neurotypical one and this itself can be a challenging narrative, particularly where many see autistic individuals as less social, rather than differently social. The principle of *different but equal* can be difficult to accept where narratives of superiority often feel more comfortable.

When we are used to narratives of human origins that stress our superiority, it can be hard to view our emotional connections to each other as, in some ways, similar to those of animals that we share our lives with as inferiors, such as dogs. Yet it might be important to acknowledge that the same pressures towards interdependence in social carnivores that led to their close emotional bonds, willingness to defend each other, share risks in finding resources and share resources themselves, and care for vulnerable infants and adults, also played an important role in our evolutionary past. Equally, our profound sensitivities to each other's feelings, our need for affection and belonging, were also a response to similar pressures felt during domestication to forge close emotional bonds through vulnerability.

Whether we have succeeded in genuinely moving away from traditional ideas of human origins as about a progression towards some superior being, of course, remains to be seen. However, there can scarcely be a more important moment to reflect on our origins and what they mean for today.

Focusing on the significance of emotions, and with them on emotional vulnerabilities, allows us to question many developments typically portrayed as key human achievements. A reappraisal of the appearance of art, aggregations and the domestication of wolves situates humans in these processes as both remarkable and, at the same time, emotionally vulnerable and deeply influenced by biology. These reappraisals can be uncomfortable. The rise of elaborate art and personal ornamentation in Ice Age Europe is here interpreted, at least in part, as emerging through new emotional insecurities, a concept that may not mesh well with ideas of art as a symbol of elevated cognition and aesthetics. The rise of large-scale social networks associated with the emergence of our own species is not here seen as evidence of a new social ability but rather new needs for connection and belonging arising from new emotional vulnerabilities. This may be a difficult message, given how much more pleasing it feels to be seen as a species with unique and elevated levels of social intelligence rather than one uniquely socially needy. Likewise, that the 'domestication' of wolves is here argued to be a response to shared emotional needs and sensitivities between wolves and humans, rather than human innovative flair, presents ourselves in a more emotionally vulnerable light than is typical.

There can hardly be a more important time to recognise, in the face of climate change, that we are not elevated above other species, nor are we invulnerable. By highlighting what connects us to the rest of nature, and the complex paths of different but equal evolutionary options, we may be at least beginning this process. Those motivations that make us sacrifice for the good of others come not from some elevation above a natural world of competition but rather from a commonality with many highly social animals. Those motivations that make us reach out despite differences, or connect across borders, are equally rooted in a biology common to some other animals. At our best, we are part of nature.

The significance of our emotional sensitivities and vulnerabilities also makes more sense of our existence in a modern world. We have seen that our interdependence, and those connections we create through emotional vulnerabilities, rather than any individual independence, was key to making us human. Throughout our evolutionary history, humans increasingly needed each other more intensely, not just practically but also emotionally. This was key to the formation of close-knit collaborative groups and networks, not just an unfortunate side effect. By recognising the importance of emotions to our uniquely strong and wide-ranging connections and uniquely human means of collaboration, we must at the same time acknowledge the significance of our sensitivity to others' pain or distress, as well as that to loneliness or a lack of social recognition.

There is, of course, a lot more to find out. We cannot help but wonder about what different emotional biology may have characterised the many different hominin species in the past. As we add increasing complexity to our evolutionary tree, different types of social relationships, with perhaps no parallels today, may emerge. Equally, whilst we would be mistaken to pit culture against biology in our explanation of behaviours, we are left wondering

about what relationships between these two realms motivated individuals in the past – to what extent any Neanderthal's motivations to care for the vulnerable were driven by how they felt or by how they were expected to behave, for example. There is also far more to know about interpersonal variability in emotional responses and capacities. It seems probable that, as much as today, some individuals in the past were deeply connected to objects that provided them with a sense of comfort or to animals that provided emotional support and companionship, whilst others felt little of these needs or responses. Some were without doubt more caring or more emotionally vulnerable than others. A perspective on past societies that integrates emotional variability may yet be to come.

There has been a simplification of many complex issues, and an overview of detailed evidence in order to achieve an understanding of the broad pattern of our human origins, and many of these arguments would benefit from greater depth. We have neither attempted to disaggregate different complex emotions, such as gratitude or shame, nor separated the nature of our close emotional connections into different ways we view love, such as romantic or parental, or close affection between friends. There is also much more that could be said about the relationship between emotions, bodies and touch. Furthermore, the details of this new narrative are bound to change with new findings, and some arguments presented here maybe overturned in future. However, I hope that the significance of our human emotional motivations towards others, and *the better part of our natures*, remains.

Why should this new version of our evolutionary past matter for the future?

Important insights gained from the hidden depths of our evolutionary past may help us navigate our futures.

The long timescales of our distant past give us new perspectives. Thinking of our evolutionary past as a testbed of what works to foster our shared survival against the odds shows that caring about others, and responding to their vulnerability, has been the most successful long-term strategy of all. This is most obvious in simple economics. People are most likely to survive where strong bonds provide the give and take that means that others are around to help in hard times. Less obviously, however, it is only in environments that are socially and emotionally supportive that we develop the levels of safety and confidence that prompt us to be motivated to help others. This matters for the future. As much as we need practical solutions to climate change, or other threats, we need these insights to develop social and emotional solutions as well.

This is not what we expected to find. We seem to find it easy to create stories about our evolutionary past to make ourselves feel superior or invulnerable but, on closer attention, these do not hold up to scrutiny. We like to think of ourselves as exceptional and above other living things. Yet this is far from the case. Like other animals, we are vulnerable to what happens in the world around us. Moreover, it clear that the processes that drove how our emotional connections evolved have much in common with those seen in other social animals. In many ways, we have travelled on a journey alongside these animals, not on an exceptional path away from them. We like to reassure ourselves of our intellectual superiority, perhaps imagining that this intellect will save us from whatever challenges we face. However, in the past, it has been our emotional bonds and our capacities to care for others that have fostered survival. We like to think of ourselves as independent. Yet, in reality, we are profoundly connected, not only in practical terms but also in how we feel. We may only rarely be entirely carried away by feelings such as compassion, guilt, sympathy or gratitude, yet they exert a surprisingly profound influence as an integrated part of our thinking. Even as infants, we guickly become aware of how others feel about us, and decide how to behave on the basis of our sensitivity towards others' feelings and how they might react. We are uniquely sensitive to the most subtle of facial expressions, to the barest hint of judgement or rejection, and to the slightest of social signs that others might approve or disapprove of us, for example. Viewing or experiencing courage, heroism or acts of supreme altruism elevates us, profoundly inspiring us to do things for a greater good. Yet, fear of failure, the concepts of honour or respect, and the prospect of loneliness drive us to all kinds of often unhealthy or dangerous extremes. We suffer in a very physiological sense if we cannot exercise our natural tendencies to care for others, and be cared for, and to belong and be appreciated. Indeed, we are only just beginning to recognise our profound need for genuine emotional connection, and not superficial social interactions, tweets or influence.

In the hidden depths of the distant archaeological record we can see that our emotional sensitivities, so long derided as weakness, are actually our greatest strengths, albeit strengths that needs nurturing. We are innately wired to care for living and non-living things, to seek emotional comfort and to reach out to form connections. When the going gets tough, we tend to help each other. But we were never meant to be individually resilient, and we struggle to find the courage to help others, to explore new ideas and to be creative without the genuine emotional connections we need. We cannot hope to become grounded, courageous and committed to shared goals unless we create the structures that foster supportive relationships and provide us with safe havens of comfort in nature, animals and even cherished things.

Today, we face some of the most serious challenges we have ever experienced. As well as the direct effects of climate change, bringing pressures on land and resources, and the impacts of new diseases, we also face entrenched hatreds, rising inequality and the emotional pressures brought about by experiencing ecological disintegration. However, it has been old narratives about who we are that played a role in creating many of the problems which we face. It is not difficult to see that cultures that elevate selfishness, inequality and exploitation of natural resources have been supported by ideas of innate human competitiveness, invulnerability and superiority over nature. If we can look beyond these assumptions and recognise a previously hidden past of connection, caring and sensitivity, we could harness the significance of these connections and vulnerabilities in creating resilient communities. We might begin to reframe who we are and, in turn, change the world that we create around us.