

## A Sense of Truth

Cupid has fallen in love with the mortal virgin Psyche against the wishes of his mother, Venus. By night, he visits Psyche, commanding her never to light the lamp that she may see him. Finally, she has to know and lights the lamp. But a drip of lamp oil falls upon the sleeping Cupid, and he awakes and flees. Psyche pursues him until at last the gods relent and allow the lovers to be united.

The story has an unexpected parallel in George Orwell's *Nineteen Eighty-Four*. Winston Smith and his lover Julia touch before they dare even exchange names. 'It could not have been more than ten seconds, and yet ... He had time to learn every detail of her hand. He explored the long fingers, the shapely nails, the work-hardened palm with its row of callouses, the smooth flesh under the wrist. Merely from feeling it he would have known it by sight. In the same instant it occurred to him that he did not know what colour the girl's eyes were. ... To turn his head and look at her would have been inconceivable folly.'

In a painting by Caravaggio, *Doubting Thomas* of 1602, the disciple Thomas can see the lance wound in the side of the risen Christ but cannot believe it is really him. Encouraged by Christ, he puts his finger into the wound to convince himself while the other disciples look on agog.

In these examples, sight is too much or not enough. Touch becomes essential. There is truth in physical sensation. Yet most of us would say we rely primarily on our sight to know what's going on around us. This is partly because we so readily neglect our sense of touch. We are always touching something, but we discount it: standing on a beach, we see the sea, we hear the waves breaking, but we ignore the constant pressure of the shingle on our feet unless we shift our weight and notice it again.

A century ago, scientists thought that touch might have four elements: pressure, pain, hot, cold. Other feelings were imagined as composites of these – wet as cold pressure, prickles as hot pain and so on. Now, this is seen as a naive view. The whole body surface is receptive to touch of various kinds. Receptors are situated in the so-called organs of touch, such as the hands or tongue, but also in the muscles and joints and at the base of hair follicles. They respond to

mechanical, thermal and chemical stimuli, from a breeze to a pinprick. How they all work to comprise what we think of as touch isn't fully understood.

Aristotle thought that pleasure and pain were sensory opposites. Although pain has now been linked to certain receptors, it is still far from clear what pain actually is. The question of how we perceive pleasure is also a topic of lively scientific debate.

Touch is almost always active. It's hard to identify an object simply pressed to your palm. But if that object is moved, or better still if you move your palm, then it becomes easier to tell what it is. This active touch involves making sense of many signals: you feel the thing itself, but you also feel yourself touching it. Even with an inanimate object, touching confirms its presence, *and ours*. This is part of the significance of touch rituals involving holy relics – from the Buddha's tooth at the Daladamaligawa temple at Kandy, Sri Lanka, to the huggable statue of the apostle St James at Santiago de Compostela. The brain uses your movement in relation to the object to confirm your own position in space and to ready you for the touch sensation.

The vocabulary of touch is correspondingly rich in terms of active engagement – we slap, grip, squeeze, stroke, fondle and caress. It is impoverished in terms of passively apprehended sensation. There are few words for grades of texture, for example. Instead, we use numbers to describe the coarseness of sandpaper or the density of a carpet's weave. Some words are equally visual or auditory. To say a material is furry or corrugated, perforated or rubbery, suggests how it looks as well as how it feels. Words like velvet or chiffon or grating have an onomatopoeic dimension that translates texture into sound. We recall scenes or smells from childhood but find it hard to recall specific sensations of touch, perhaps for the very reason that there are so few words to hold them in the memory.

Our difficulty reflects the fact that we use our senses in concert. We seldom see or hear alone. Often, when we think we are learning by touch we are using our eyes and ears too. Try feeling the inside covers of this booklet with the tip of your finger. Try it again wearing earplugs. You will find that your sensation of texture came largely from hearing the *sound* made by your finger, and that

without this audible feedback you are forced to attend more closely to the purely tactile sensation.

Touch, however, is distinct from the other senses because it is social. Touching another person inevitably produces a response in that person, which in turn affects *our* feelings. This happens when we return a handshake or a kiss or even stroke a pet. The evolutionary psychologist Robin Dunbar writes of being groomed by a chimpanzee – the sense of fear followed by an almost erotic pleasure at the skilled touch applied to a task no human could perform. Dunbar argues that touch began as a means of communication before speech. And at the hairdresser's or the doctor's today, touch is the trigger for possibly intimate conversation or even a substitute for it, 'both physical sensation and social intercourse'.

But we may be losing the natural ease of touching and being touched. We live in smaller family units, or alone. We interact more with machines, less with one another. It is easy to imagine we live in a touch-starved society. We have proscriptions against touching children and colleagues at work, while the elderly in care homes crave human touch but are not permitted it. Experiments on primates have shown that brain damage occurs quite rapidly when normal touch is denied.

Meanwhile, we experience touch vicariously. We watch programmes about hands-on activities such as gardening, cooking and DIY, we play computer games involving hand-to-hand combat. At the same time, we are in contact (as we say) with hundreds of people by email. What degree of social touch between us all would be right if the technology could provide it? Dunbar has done research to show that we can't know more than a certain number of people, suggesting that only so much physical contact may be appropriate in any case.

Winston and Julia's touching in *Nineteen Eighty-Four* marks a triumph of humanity over the dehumanising regime of Big Brother, a force that relies on sight to fuel suspicion. Perhaps technology is an obstacle to more satisfying touch, although it has proved to enrich our visual and auditory experience. Designers are divided on the issue. Some devote effort to the feel of a switch or

a dial – a specialism they call ‘buttonology’. Others have worked on touchless devices in pursuit of hygiene or convenience.

How things feel is critical to our response to them. Yet the quality of touch is neglected in so many products. Even with the newest electronic gadgets, the interaction is often primitive, brutalised, reduced to the prod of a screen or the tap of a keypad. There’s no negotiation. It’s yes or no. How different from traditional items such as the piano, where the touch of a key may produce an infinite variety of tones, or the favourite armchair or much loved teddy bear which gain value, rather than lose it, through repeated touch. Surely these too can offer inspiration in contemporary design.