

Areté *the Arts*

Tri-Quarterly FICTION

POETRY REPORTAGE

REVIEWS

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of Ted Hughes ■ *Why Margaret Atwood is a Bad Novelist* ■

coda of *Noces*); the anagnorisis (in *Oedipus Rex*); the radiance (*Apollo*). Such epithets are dangerous, of course, but other listeners will find different ones.

Areté A last word?

Craft Stravinsky's greatest qualities were his powers of concentration in music and his equally strong powers of patience. He could wait three or four days to be certain of a single note. In everything else, he was the most impatient man I have ever met.

Steven Pinker and Ian McEwan

Dating, Swearing, Sex and Language: A Conversation with Questions

McEwan Steven Pinker is one of those extraordinary scientists who know how to engage the attention of lay-people. One of the great thrills of reading him is to enter the thought processes of a man of extreme fluency. I sometimes follow up, when Steve has been in public debates, transcripts of things said on the wing. And I'm always struck by the extraordinary wit and articulacy – even though he is not at his word processor – just defending a position or indeed attacking a point.

A little bit of background: in the very dark days when literary theory had its supreme hold on the windpipe of thought in academia and I was living in Oxford, a very good friend came round one evening. He was incredibly gloomy because his students felt they could no longer read *Middlemarch* or anything in the canon before they first learned *how* to read – and to do that they had to learn theory. I leapt from my chair and said, 'Ah ha. I know the very book, an evidence-based thinking about language'. And I pushed into his hands *The Language Instinct* [by Steven Pinker], one of the finest books about the way we use and acquire language. It explains that those who believe language is acquired by pure imitation are framing the problem incorrectly. Later, I discovered, and I did mean [turning to Pinker] to write to you about this, that all of my friend's students are now required in their first year, and indeed their first term, to read selected chapters from your book – as an antidote to armchair-based speculation about mirror stages and all the rest in literary theory. So you've had a great impact on the University of Oxford.

Steve, before we come to this new book, *The Stuff of Thought* – in

many ways the synthesis of much that's gone before – I just want to ask you, first of all, about your role as a popular writer of science. Behind that figure is a very active working scientist, publishing papers that people like us never see. This hard science has something to do with the way children learn language. Perhaps you could just tell us about yourself as a scientist.

Pinker I come to language from psychology actually. I'm not a linguist. I've always been an experimental psychologist. In fact, my doctoral research and a lot of my early research was on three dimensional visual imagery, on recognising objects, on visual attention. For me, language is one of the amazing things that the human mind can do, and the one that I, at some point in my career, decided to concentrate on in terms of research. One of the main topics that interested me in the psychology of language, was, as you mentioned, how children learn it.

Children clearly do have to learn a particular language because if they're brought up in Japan they end up speaking Japanese, and if they're brought up in England they end up speaking English. But clearly learning a language can't be a matter of just recording individual sentences, because children aren't parrots. They don't just regurgitate what they hear from their parents. The essence of language is the ability to combine words into brand new combinations, which is what allows us to express an unlimited range of thoughts. So the scientific problem in language development is this: how do children go from some finite number of sentences they hear from their parents or from their peers, and extract the underlying algorithm that combines words into phrases and sentences and larger words?

In one phase of my research I concentrated on one very small phenomenon of language. I had previously written a kind of theory of everything, a technical book, outlining a theory of language acquisition. But it turned out to be too big a problem to study empirically – just language development in all its glory – so I have in various stages picked two problems. One of them led to this latest book, *The Stuff of Thought*.

But the other one was on irregular verbs, which seems an unlikely topic to devote a decade and a half of one's life to. I say it's in the great academic tradition of knowing more and more about less and less until you know everything about nothing. Which perhaps is a good antidote to my other books, which I suppose could be criticised for knowing less and less about more and more, until you know nothing about everything.

But in this case, the irregular verbs – verbs that have an unpredictable past tense form, bring, *brought*, come, *came*, take, *took*; as opposed to regular forms like walk, walked, play, played, and so on – were interesting to me because an irregular form, since it's idiosyncratic, has to be memorised.

(Which is what we do with words in the first place, because every word is an arbitrary pairing between a sound and a meaning.)

A regular verb can be memorised, but it doesn't have to be. When a new one appears in the language, like 'to blog', or 'to spam', you don't have to go to the dictionary to look up its past tense form, you don't have to consult memory, you just add the suffix 'ed'.

This in microcosm encapsulates what I think of as the two engines of language – memorising words and combining bits of words according to rules.

Errors like 'we holded the baby rabbits', or 'she brokeed my toy' show that the children at that point must have acquired a productive rule. They clearly haven't been memorising those forms from parents.

And I did a number of studies of just about every aspect of irregular verbs that I could think of, the time-course of development of these forms – where those forms came from in the history of language; why we even have irregular forms; what parts of the brain might be differentially involved in rule-governed combination versus memory look-up. And I (improbably) tried to write up that research in a popular book called *Words and Rules*, which came out a few years ago.

The other area that I focused on – narrowing down the interest from language as a whole – was verbs. That is, the syntax and semantics of verbs. The immediate impetus was the question: how do children acquire this very important part of language? The reason verbs are important is that each verb is not just a word, it's a framework for the rest of the sentence: the verb defines slots for a subject, requires an object if it's a transitive verb, sometimes prepositional object complements, and so on. The verb really holds the clause together.

Figuring out how children acquire verbs is a big part of figuring out how they learn to speak in general. But the more you look at verbs, the more tricky it becomes to figure out, first of all, how they work for you and me – and even more so how children figure it all out. Just to give one puzzle, merely getting the syntax of verbs down isn't simple. You can say 'I poured water into the glass', but it's a little odd to say 'I poured the glass with water'. We all know what it means, but it doesn't quite compute. On the other hand, with the

verb 'fill', it works the other way round, you can fill a glass with water, but you can't fill water into a glass. Is this an arbitrary quirk, like 'bring'/brought as opposed to 'slung'/slung? It turned out the answer is 'no', that it was predictable from a very subtle aspect of the meanings of the verbs. Even though you might think they are close to synonymous (both ways of getting substance into a container), the subtle difference is that we construe 'pour' as doing something to the water, namely causing it to move, whereas we construe 'fill' as doing something to the glass, namely causing it to change state from empty to full.

And if there's a simple rule that says 'the thing that is affected is the direct object', the rule, with some modifications, might be universal. It might be found in all languages.

So, getting the right construal, seeing that event in the appropriate way, allows you to predict which verb and which syntactic structure fits. If you're doing something to the glass, the glass is the object, hence 'fill the glass', and if you're doing something to the water, the water is the object, hence 'pour the water'.

This opened up the world of concepts and semantics that I explored early on in *The Stuff of Thought*: namely, what are the elements out of which verb meanings are composed, elements like cause, goal, act, path, and how do they give people alternative ways of construing the same event? That makes the rest of life so interesting. If something as simple as getting water into a glass can be thought of in two almost incompatible ways, what does that say for how we conceptualise war and abortion and stem cell research and taxes and so on. Anyway, that's what opened it up.

McEwan Amazing, how such a small thing can open up larger things. Let's stick with verbs for a second: you quote a remark made by President Bush that may or may not have got him into a great deal of trouble. Perhaps you could just go into this for us? There are two verbs at issue – a Clinton verb, 'is', which famously required some definition and some fancy footwork, and the Bush verb, 'learned'. The Bush verb has a British connection, so, Steven, could you take us through these verbs and their massive consequences?

Pinker In the build up to the Iraq war, much was made of the infamous sixteen words in George Bush's State of the Union address in January 2003, just a few months before the invasion. In his address, one of the main rationales for the invasion was that 'the British intelligence has learned that Saddam has tried to obtain significant quantities of uranium in Africa'. I'm quoting from memory but the quote is pretty

close. This was the so-called yellow cake in Niger. As you may remember, there was a theory that Saddam was building weapons of mass destruction, and this was a prime piece of evidence. Now it turned out British Intelligence did believe it, and they had some reason to believe it, but it was known that it was far short of conclusive. Certainly, in Washington, Bush's advisors did not believe that this was proof, but they took it seriously. Now the ordinary use of the word 'learn' is what linguists call a factive verb, or a success verb – that is, you can't learn something that's false, unless it's in the specific context of school. In school, you can say we learned that there were four taste-buds, now there are five, but outside of the sense of 'being taught', you can't learn something that isn't true. [For example, I learned to swim/ski/drive a car/ride a bicycle. All of them actual skills.] It's like the verbs 'remember', and 'know', and unlike verbs like 'guess' and 'believe'. And so, in saying 'the British Intelligence has learned', that implied a certitude on Bush's part which actually conflicted with the actual state of knowledge as acknowledged within his circle. My favourite illustration of what a factive verb is comes from a witticism of Mark Twain's: he said 'when I was younger I could remember everything, whether it happened or not, now as I'm getting older, my memory is failing, I can only remember things that didn't happen.' [Laughter] Now you all laughed, why is that funny? It's not funny that your memory fails with age. The humour comes from the fact that you can't remember something that didn't happen. 'Remember' is a factive verb: it implies that what you remember is true. Likewise 'learn' is a factive verb.

McEwan So, can I just move you on to 'is'?

Pinker 'Is.' It depends on what the meaning of 'is' is.

McEwan Yes, this was a famous remark of President Clinton's...

Pinker It was one of the five counts of impeachment. He was impeached, though not convicted, in that two-stage process in the American system. Clinton's attorney had been questioned, asked whether there was any sex between Clinton and Monica Lewinsky. The attorney, speaking on Clinton's behalf, said 'no there isn't'. The reality was of course that they had had an affair, but it was over at the time of the deposition. When this was challenged later, as a completely false statement, he said that depends on what the meaning of 'is' is. If it means 'is' at the present moment, the statement was an accurate statement. If 'is' meant 'is and always has been', then it wouldn't be accurate – but that isn't the way people ordinarily understand the present tense.

If you actually look at it, it was semantically defensible. I think there are two reasons why this led to howls of ridicule and outrage. One of them is that, unlike a discrete event – such as quitting one job and starting another, signing a piece of paper, getting your paychecks from a different source and so on – the way that a love affair or a sexual affair ends is fuzzy. When you have series of encounters that cluster into a cloud of temporal events, what you count as the end is debatable. How many months have to elapse before you say there is no sex? I mean, there could be tomorrow, couldn't there? That was one aspect.

The other one, of course, is the difference between what linguists call semantics versus pragmatics. 'Pragmatics' is what words mean and how you use them in a social context. A lot of our use of verbs and language depends on construing and packaging them into contexts. For example, a smoker, who says 'I've quit smoking' but whose last cigarette was ten minutes ago, is using a semantically defensible sentence. But we kind of laugh – in the light of the context. Ordinarily, in conversation, we co-operate with our listeners, we take a stab at what the listener expects to hear. If we didn't do that, our conversation would bog down in the language of legal contracts.

The thing is that, in a legal context, by definition, you're not in a co-operative situation, you're in an adversarial situation. You're in a situation where what the concept of whole truth is, when you swear to tell the truth, nothing but the truth, is what is at issue. The whole truth was I think what was at issue there. Obviously the prosecutor wanted to know whether there had ever been sex, not whether they were currently in the midst of an affair. So what Clinton said, via his attorney, while being technically accurate, was contrary to the spirit of the conversation. But it isn't necessarily dishonest – because, in the legal proceeding, the question is what are you obligated to say. Clinton said, I think quite accurately, in his defence afterward, that he was trying to be truthful – but not terribly helpful. In ordinary conversation we have to be both, and that's what I think led to the outrage.

McEwan These are not angels dancing on a pinhead. Should there be any doubt in this room about the extraordinary importance and the consequences that flow from semantics, could we just take one third and final example – the example you start your book with, which relates to whether the destruction of the Twin Towers on 11 September 2001 was one event or two. A lot of money hung on this decision. Semantics was crucial to vast sums of money being handed over by an insurer...

Pinker Three and a half billion dollars was at stake. The lease holder for the World Trade Center held an insurance policy that entitled him to three and a half billion dollars per destructive event. For many years, in a series of expensive court cases, lawyers haggled over whether what happened on 9/11 was one event – because a single plot was executed – or two events – because two different buildings were hit. In this case, how we package the flow of time into these units we call events, was the bone of contention. It's another example – like the fuzziness of the end of an affair – of how we take happenings in time and apply the mindset we apply to objects in space. Every concept that we apply to objects – for example, the difference between generic concepts like beer and specific discrete quantities like 'another beer' – all apply to time.

McEwan What was the decision?

Pinker Eventually they settled on four and a quarter billion.

McEwan Which sounds very English.

Pinker They chose not to resolve the question of how many events that figure corresponded to. The math doesn't make sense. I don't know if you can have a quarter of an event, if that's a coherent concept, but I think the semantic arguments were meant to stake out positions and basically force the negotiations into a certain range.

McEwan Let me just quote from the beginning of *The Stuff of Thought*. You say: 'language is a window into human nature' but you add this proviso: 'language is above all a medium in which we express our thoughts and feelings, and it mustn't be confused with thoughts and feelings themselves.' In other words, I think what you're suggesting is this – that your theme is going to be the relationship between language and reality, of how language will open a window for us into our natures.

Can we just get one thing clear? When I was at university, I learned, to use that factive verb, that Wittgenstein was correct to say that the limits of my world are the limits of my language. This seems to be a pretty fundamental matter. Chomsky, and then you – much refining Chomsky – by considering how thought actually evolves, and by empirical experiment – suggest that the ways we think are independent of language. Can you just settle this matter for us before we proceed?

Pinker Indeed. Well, I think that Wittgenstein's aphorism, probably not the only one of his aphorisms, doesn't really stand up to scrutiny. The limits of your language can't be the limits to your world.

And it can't be true that we think in our native language, in English or Japanese and so on. I first came to this belief from thinking through the problem of language acquisition. How do kids acquire a language in the first place? If their minds are utterly devoid of thought, how do they interpret those noises coming out of their parents' mouths in order to crack the code of language in the first place? Taking ideas developed by others in the theory of language acquisition, I framed the problem in terms of a child construing a situation, making a guess as to what the speaker intends, then connecting their interpretation of the event – arrived at *not through language* but through their senses, through their understanding of people's motives, through their construal of the situation – connecting their interpretation with the actual left to right sequence of words that they hear.

If the child was not capable of construing the world in terms that matched those of language, how would they learn language in the first place?

Also, where does language come from in the first place? It wasn't like it was set down by a committee, and handed to us like a protocol for a computer programming language. Language is very much a grass roots phenomenon. People are constantly inventing new terms, people invent new idioms, they borrow from other languages, they concoct sound that they hope will remind listeners of a particular idea, [*hesitates*] and we often have moments, like I'm having right now, where we can't find the words to say what we mean, which suggests that there is something that we mean, that we need the words to clothe – that thought precedes words.

McEwan William James has a wonderful description of what it's like to forget a word as you reach for it, and he says 'that you know everything it is not'. In other words, you have a very clear sense of a shape of a thing, and you know perfectly well what it means, but there it stands invisible in a network of other words that won't do.

Pinker Yes indeed. There is a whole genre of recreational word-coining for cases where not only can you not retrieve a word, but the word doesn't exist. Those of you who are familiar with the wonderful book by Douglas Adams and John Lloyd called *The Meaning of Liff*, will know they took a bunch of place names, from places that no one ever needs to go to, and applied them to concepts that everyone has a need for.

McEwan My favourite is Peoria, the vague suspicion that you haven't made enough roast potatoes. [Actually, 'the fear of peeling

too few potatoes'. We checked.]

Which suggests that we can always make words when we have meanings.

Another one was Abeline: on a hot insomniac night, an abeline is that cool corner of the pillow that your head has not yet warmed up. ['Descriptive of the pleasing coolness on the reverse side of the pillow'. The novelist at work, fruitfully elaborating.]

Pinker My favourite is Hextable, which is the record in someone's collection that convinces you that you could never go out with them. For years I lived in terror that my copy of Gordon Lightfoot's Greatest Hits would be my Hextable. [Not in *The Meaning of Liff*. But not another novelist at work. It's in *The Deeper Meaning of Liff*.]

McEwan You'll never work in this town again, as it were. Which brings us to an interesting parenthesis in your book – nothing, you say, makes a linguist's eyes roll towards the ceiling more than hearing people say, 'German is the only language for science', or 'French is a marvellously logical language' – or whatever.

Pinker Well, one reason is that language is a moving target. It may be true that, at a given stage in a language, you can't do much science in it, but that had to have been true of English at one point, or any language. You change the language, you borrow terms, you invent terms. A dramatic example was the crazy project in the Jewish settlement in Palestine at the end of the Nineteenth Century to revive Hebrew. As part of the ideology, they wanted to shed Yiddish, the language of the ghetto. Hence Hebrew, this language that hadn't been spoken conversationally for several thousand years. Only now, they have to start talking about, you know, tractors and collective farms and so on. And they did. The language changed, and it continues to change, just like all languages, and you get it to do what you need it to do.

McEwan On the other hand, wasn't it Daniel Dennett who was coming at this from another side? – suggesting that this is all very well, but there are many things we cannot think of, especially problem solving, without language. I mean, mentalese can only take you so far...

Pinker Yeah, I think there are concepts, say, days of the week, which would be very difficult. Maybe not impossible, but certainly it would be difficult to learn the concept of a week, without it being explained to you in a language. But I think that, even there, it's thinking through what's going on. It's not that the language gets implanted

and that's what gives you the concept. I think language is what you use to explain to other people some other concept that they would not have been able to obtain by any other means – but, nonetheless, what they have acquired at the end of that process is not just a bit of language. It's not enough to say 'Tuesday' for you to understand the concept of Tuesday. The word has to be embedded in an explanation that taps into a much larger understanding of time, and days, and social institutions, and so on.

McEwan You describe certain tribes that do not count beyond the number two, which is very hard for us to grasp. And you wonder why their language, given language is a response to the world and the world is full of things and they are countable, how this can come about?

Pinker Well, they exist. I think it's quite common, it's not just one or two tribes. It may even be a default way of expressing number – something we may even share with other primates – to individuate one, two, maybe three or four objects as a number concept, but beyond that, it's just 'many'. You also have a rough sense of this flock of birds, as twice as big as that flock, without being able to count them individually. I asked an anthropologist who'd worked with one of these peoples, and he said, 'well, they don't have large numbers of indistinguishable objects, they just know them individually'. So a hunter will just know each arrow that he's made. He won't need to say 'oh, do I have all seven arrows?' He knows this arrow, he knows that arrow, and so on. It's a bit like the way I don't know exactly how many people are in my extended family, if you add up all my cousins, because I just know every cousin. I have the ability to count them now that I think of it, but I don't really know what the number is, and that's the general mindset that they have for all of their possessions.

McEwan So is counting an invention?

Pinker Counting is an invention. There are basically two things that are inventions. One of them is the recursive system of numbers that allows us to give a precise number to large quantities. Basically, our innate equipment is a general estimation ability for large quantities, and a precise number concept for small quantities up to about three. The achievement of the western or literate number system is allowing you to apply your concept of exact numbers to large quantities. That's the gift. And then the algorithm for doing that is counting, which we often equate with numbers but which is not the same thing: counting is a little bit like when you learn long division. I don't know if anyone learns long division any more, I learnt long division

– but it's a technique to get at an answer. Counting is a technique to get at a numerosity. The technique is to memorise, as a child, a particular stretch of language – it's almost like a bit of blank verse that we commit to memory. The poem, so to speak, is 'one, two, three, four, five, six, seven, eight, nine, ten', and so on. Now, when you have a set of objects and you want to know its numerosity (as opposed to a general sense of a lot or a little) you recite the poem, directing your attention to each object in synchrony with the feet of the poem. When you say 'one', you look at one of the objects (or touch it), when you say 'two', you look at a different object, and so on. As you go through the objects, and through the poem, you make sure not to focus on any object twice, and not to leave any out. When you get to the last object, then the word you have just recited (say, 'nine') is the numerosity of the set.

McEwan That's the rule...

Pinker That's the rule. That's the algorithm. But it's not the same as the number faculty that we're born with.

McEwan You say that most of us get a chance, at least once in our lifetime, to make up a word – that is to name a child. And here we run into something of a paradox, because we have the illusion when we do this of just choosing the name that seems to appeal to us. Then we discover that we're in a community of like-minded choosers, whose choices sooner or later will seem curiously out of date. Now, rather disarmingly, you set yourself in a virtual nation of Steves, Steve Jones, Stephen Hawking, Steven Rose – they stretch to the horizon. Could you just reflect for us on what this naming tells us about ourselves? And about this apparent freedom and lack of freedom?

Pinker Yeah, this disconcerting constriction of our sense of free will. You often have parents who say 'Well, we named our little girl Madeline, because my wife had this beloved great aunt Madeline, and we thought it would be such a distinctive name'. Then they get to the child care centre and there are three other Madelines. A lot of the hypotheses that occur to people explaining why names go in and out of fashion can be disproven by looking at the chronological data of the waxing and waning of popularity of names. In the United States, it's easy to do it, because, for some reason, the social security administration published a database on all names in their records. Records which are close to exhaustive since the 1890s. You can waste lots of time plotting the rise and fall of your favourite name. I don't know if there's a comparable database in the UK. The hypothesis is that names reflect social trends. The reason there was an upsurge of

biblical names in the 70s and 80s – Adam, and Joshua, and Sarah, and Rachel – is an upsurge in religious sentiment. Not true. At the point at which biblical names are going up, religious observance is going down. Or children are named after real or fictitious celebrities, soap opera characters, actresses, pop singers, and so on. Again, there are a few occasions when that seems to happen. According to my colleague Stanley Liebersen, who studies these things, the name Darren became very popular in Britain after the situation comedy *Bewitched*, which was imported to Britain. But in most cases, the name for the character in the soap opera is chosen in the wake of its increased popularity among parents – so it reflects a trend rather than causes it. Rather than some external cause, resulting in name choices, in effect it's an internal dynamic, where the choice of name in one generation is caused by the choices of names in the previous generation. Parents react to the names that are out there – names that are too geriatric because all the people they can think of are in an old people's home; or names that are just old enough, perhaps the previous generations' names, so they sound like they're ready for a revival. There are popular sounds, so when Jennifer became a popular name, it dragged in Jenna, Jessica, Jenny, and so on. And there's a lot of unpredictability. It's kind of like dot.com bubble or tulipomania. There are just waves of popularity, it becomes too popular, or it crashes, and that's what happened to Steve.

McEwan But Steve will return.

Pinker I'll be dead.

McEwan The McEwan clan – which is a very tiny obscure clan, that just served other clans with poems – is now known as a broken clan. In fact, I think its symbol is a tree stump on its side. But its little logo underneath is 'we'll be back'.

In your exploration of language and human nature, you talk about what people are doing in a conversation. I want to quote you. You say, 'why don't people just say what they mean? The reason is conversational partners are not modems downloading information into each other's brains. People are very very touchy about their relationships. Whenever you speak to someone, you are presuming the two of you have a certain familiarity, which your words might alter. So every sentence has to do two things at once: convey a message, and continue to negotiate that relationship'. A little later, you reach for a very simple, common example, which gave me a great deal of entertainment. You wanted someone to pass the salt. Why don't we just say 'pass the salt, give me the salt'? What else do we have to negotiate

in this brief moment of interchange?

Pinker Why do we say 'if you could pass the salt, that would be awesome'? Or in Britain, you'd say 'if you could pass the salt, that would be brilliant' – a word I still can't get used to in that context, with an American's ears. There is a whole chapter on that set of phenomena. A polite request is the simplest example of an indirect speech act, which can include veiled threats, veiled bribes, sexual innuendo. In the case of the polite request, on the one hand, you don't want to treat your listener as some kind of underling or factotum, who can be bossed around at will. Issuing an imperative presupposes that you could expect the listener's compliance. And with someone that you're not very close to, or very superior to, that is a touchy relationship. You don't want to make it seem as if you have a dominant/subordinate relationship, so if you say 'if you could pass the salt, that would be brilliant', and your listener assumes that you haven't lost your mind, they can sniff out the request beneath the overlay. The imperative gets through, but the relationship of non-dominance is preserved.

McEwan Preserved by semantics, indeed?

Pinker Yes, preserved by the surface form, which is consistent with the safest relationship, while the subtext is where the actual communication gets done.

McEwan OK then, moving to sexual dialogue, you evoke for us a Thurber cartoon – just to show us how far this goes back – of a man at the foot of the stairwell saying to his date at the end of the evening, 'You wait here, and I'll bring the etchings down'. What's happening when a man says to a woman 'come up and see my etchings'?

Pinker It works at a number of levels. One of them is the man doesn't know whether the woman wants to have a sexual relationship. You're just going out for dinner or to see a movie. But though companionship is the ostensible purpose of the outing, what makes it a date is that a sexual relationship is a possibility. Yet in many ways a sexual relationship and a platonic relationship are incompatible. It's got to be fish or fowl. The man doesn't know the woman's intentions. If he, say, blurted out 'do you want to come up and have sex?' and she were to say yes, then that would be fine. On the other hand, if she were to say 'no', that would lead to the situation in which it's become apparent that his interest was sexual, and hers was not. We'd then have a special emotion which we call awkwardness that comes in situations where there is a mismatch between the relationship assumed by one person and the relationship assumed by the other per-

son. One way of avoiding the awkwardness is to frame a question in such a way that a willing partner can recognise the intent, and therefore consummate the deal, and an unwilling partner can treat it at face value and therefore preserve the more comfortable relationship. So there is plausible deniability. Sartre has a version of this scenario, a philosophical parable in *Being and Nothingness* (Chapter 2, 'Bad Faith', Section II 'Patterns of Bad Faith'.) I think that is also the source behind the veiled bribes, like 'gee, officer, is there some way that we could settle the ticket here without a lot of difficulty?'

McEwan Take us through the bribes: because it seems as if seduction and bribery semantically have some sort of relationship. There's the traffic cop, he's already put the thing on your car, and you don't know whether he's corrupt or not... So how do you go about offering him a bribe? I'd like to know...

Pinker Well, this does have some practical importance. The problem with saying 'if I give you ten pounds, would you let me go?' is that you don't know the intentions of the officer. You could be risking an arrest for bribery, which is a much higher cost than a traffic ticket itself. This is an actual scene in a movie *Fargo* that some of you may remember: if you're asked to produce your licence and you show the wallet with the licence exposed with a 50 dollar bill extending ever so slightly, then you say 'well, is there some way we could settle this here?' that way the corrupt officer could accept the bribe, the honest one couldn't make the charge stick in court.

On the other hand, there was an intriguing article in *Gourmet Magazine*, where an editor dared a food writer, a restaurant reviewer, to see if he could bribe his way into the most exclusive restaurants in Manhattan without a reservation, if the Maître D' would seat him immediately in exchange for a twenty dollar bill. The interesting thing was that, first of all, the food writer spontaneously resorted to euphemism - 'I was wondering if you had a cancellation' - as he held up the bill, just sort of discreetly under his hand. Or he said, 'this is a really important night for me'. The other interesting thing is that it worked every single time. All Maître D's are bribable.

McEwan But in every case, the journalist did it so he could plausibly deny that was what he was doing...

Pinker The main keys to this puzzle are just the game-theoretical logic of plausible deniability, and the fact that relationship mismatches in social life can lead to awkwardness. We are wary of a cost, even when we are not going to be sent to jail or given a fine: someone turning

down a sexual overture, or a Maître D' indignantly saying 'what sort of establishment do you think this is?', strikes enough terror into us that it's comparable to being arrested.

But there's another part too. For all the glories of language, we seem constituted to feel that there are some domains in which language is inappropriate - in particular, it's inappropriate in a communal relationship, one of the three basic types of human relationship identified by the anthropologist Alan Fiske. It encompasses relationships within a family, like a husband and wife, or boyfriend and girlfriend, very close friends, a tightly knit platoon of comrades. That kind of relationship, where you share indiscriminately without demanding reciprocity, where you feel like one unit, tends not to be negotiated through language. A parent doesn't articulate all its parental responsibilities to a child, or vice versa. When two friends get together, they don't say 'well, lets agree to have beer at least two times a week, and if you ever need money, I'll loan it to you, and if I'm ever in hospital, you'll visit, and here's the contract for our friendship'. And in our intimate, romantic, and sexual relationships, we cement them through other forms of communication, through bodily contact, hugs, handshakes, cuddling, sex, pats on the back. It depends on the relationship. Communal meals are a key bonding ritual all over the world, and of course an essential component of a date - by breaking bread together, it's almost as if you were the same stuff. By eating the same stuff, since you are what you eat, you are the same stuff.

Often there are rituals of blood, cutting fingers and letting the blood mingle. So it's almost a folk biological notion of merging essences that we rely on to cement an intimate relationship. And language is not only not up to the task, it can even subvert the relationship. Anyone who had articulated exactly what the terms of their romantic relationship were, would not be getting the point of a romantic relationship.

McEwan No, you wouldn't want to say 'why are we at the opera?'

Pinker Yes, right....

I hope I don't embarrass you by raising your recent book *On Chesil Beach*, a haunting novel. It's very much a novel about language by its absence. A newly wed couple are paralysed and unable to convey their current feelings about the consummation of their marriage in words. The plot very much hinges on that inability to use language. I was heartened that the first words in the novel were 'they were young, educated, and both virgins, on this, their wedding night, and they lived in a time when a conversation about sexual difficulties was plainly

impossible. But it is never easy'. So, it is set in that era in which open talk about sex was taboo. But I was glad when you added that it never is easy. The fact that it's never easy reflects the idea that most intimate relationships are ones that we don't negotiate through words. This can lead to great tragedies. We force ourselves to use words to express it, but it doesn't come easy. And I think the ultimate reason, if I can just go a level deeper, is that communal relationships, alliances, families, marriages, are things where, to commit yourself, there is an advantage to it being involuntary, emotional, visceral. Why would anyone commit themselves, making them vulnerable to be deserted or betrayed? How do you persuade someone to commit themselves, given the risk that they engage in. If you calculate while you're in the relationship, well, you might calculate why it no longer pays to be in that relationship. I think it's important to convince the other party that it came over you, you feel it in your marrow, it's not rational. I think that's why we have a phobia of articulating it in words, which of course is connected to the rational decision-making part of the brain. When words *are* exchanged in these communal relationships, they're often formulas, they're not articulate speech composed for the occasion. They are things like prayers, which are the same every time, they are almost behaviour rather than conversation, pledges of allegiance. 'I pledge allegiance to the flag blahblahblahblah'. 'I love you', 'I love you too', that exchange, which is not a conversation, is really a kind of behaviour. That's the only kind of language we tolerate.

McEwan And you don't say for how long, do you? But you mean now and forever.

Pinker And it's the act of saying it and of reciprocating that cements the emotion, not the actual content as a proposition.

Questions from the Floor

Woman What is going on when we swear and use taboo language? Is it verbal violence, is it subversion, what's going on there?

Pinker It can be a kind of verbal violence. I'm glad you raised the question. It is actually a continuation of this last bit of the conversation, because of course the inability to refer to sexuality and other domains is a kind of taboo, and when there are certain words for it, they tend to become taboo. Often words for highly fraught subjects, for sexuality, for excretion, for deities, for disfavoured people, whether

they be enemies, infidels, cripples, despised minorities, death and disease, subjects that arouse strong negative emotion, tend to be taboo. Now, of course that can't be the only ingredient to swearing, because we have euphemisms for all these terms that are perfectly acceptable. We can talk about copulating, or making love, or faeces, or the Almighty, so it's not just the meaning of the term, but packed into a taboo term is the implicit message that I'm using this word in order to make you think about the most fraught or disagreeable aspects of the phenomenon. Far from trying to hide something, which is what we do with a euphemism, I'm forcing it on you, what we would sometimes call dysphemism. So the heart of swearing is forcing the listener to try on a disagreeable thought through the medium of language. The emotional power that words can have by that route then makes them adaptable to a number of other forms of swearing. There are more idiomatic or non-literal uses of these words, as in curses, like 'fuck off', or 'fuck yourself'. Then there are these strange idioms that don't make any syntactic or semantic sense, like 'close the fucking door', or 'what the fuck is going on', where it's completely unclear what the word is doing in the construction.

McEwan I should add there are several pages on the difficult semantics of 'shut the fucking door', for those interested. But just to clear up, I know everyone will have this thought: isn't sex also a source of enormous pleasure, so how is its negative connotation in swearing so automatic?

Pinker It's an interesting question. Sometimes when I outline this idea, people say 'well how does sex fit into the list? Isn't it positive, why is it negative?' Of course it can be positive, with consenting adults, but that's probably a small fraction of the sexual scenarios that we can imagine that take place. There's also exploitation, there's the possibility of illegitimacy, there's the possibility of cuckoldry, of infidelity, of rape, of child abuse, so if you think of the full sweep of sexuality in human experience, there are a lot of nasty emotions it can arouse, and I think that's what charges sexual language with its sense of taboo.

Woman 2 I want to go back to the question of irregular verbs. It's often seemed to me that in every language that I've tried to learn, 'to be', and 'to have' are the most irregular verbs, and they're also the most personal ones. Is that significant, or am I missing the point?

Pinker Yes, no, well, yes and no. It's common that verbs like 'be', 'have', 'go', 'do', 'say' are irregular across languages. I think the main reason is frequency, because irregulars depend on memory. The more often you hear something the better you remember it. For something to remain in the language as an irregular, it has to be used often enough that every generation has plenty of opportunity to hear the past tense form. Verbs that are either very generic, like 'be' and 'have', or that are auxiliaries, that are put to a secondary use to express tense and modality and negation and so on, we hear them so often that they can afford to survive in highly irregular forms. So that's the short answer.

Man Steven, you referred, in your comments to numeracy and counting, to the phrase 'innate faculty of numeracy'. My question is, and it's an important one, is there within children, or indeed all of us, an innate faculty of literacy, which might be encouraged or neglected?

Pinker There probably is not an innate faculty of literacy. And there's probably not an innate faculty of numeracy in the sense of formal arithmetic or counting. Innately, we seem incapable of apprehending exact quantities more than about three. In common with other primates, as I said. Schools are important because they teach tremendously useful and valuable things for which we don't have innate faculties - reading and writing being one, and counting and doing simple maths is another.

Man 2 You talked in the Science Friday Podcast about the feedback loop between the language that we use and the world model that we use to construct the thoughts with which we then express in our language. You said, in effect, that language doesn't drive the world, that it's more the other way round. What baffles me is the way in which we have different world models. I mean, I've been married close to 30 years, and there are times when I talk to my wife that I think I'm communicating with a member of an alien species. I've had a scientific technical background. I have this nice, clear, hierarchical structured world model which can be elegantly traversed. Whereas I think my wife's resembles something like a bowl of spaghetti, and a journey through it - oh good, I'm being politically incorrect - is a bit like going through space mountains, you know, travelling in the dark with lots of twists and turns.

Pinker Can we hear from your wife?

Man 2 I didn't bring her. Could you comment on the way in which

we have these different world models, because that seems to me to be at the bottom of a lot of communication problems.

Pinker Different world views? In the sense that in order to interpret this indirect speech, everything from polite request to veiled bribes, you rely on a background theory of the psychology of your interlocutor, you tap into the implicit theory of what's going on in the mind of the speaker. Now there are certain things that you can assume of just about everyone. They want certain things, they know certain things. When you are wrong, when you just don't know the other person - whether because they come from a different culture, or they have personal quirks, or they are a member of the opposite sex - then there can be miscommunication, inadvertent, or in the case of, say, the Clinton testimony, deliberate, where you challenge, or fail to grasp, all of this background knowledge that goes into interpreting an indirect utterance. It's also the reason why we don't have very good computer language-understanding systems. The problem isn't so much in programming the computer with the grammar and vocabulary of English, but programming a computer with the common sense that's needed to read between the lines - which we do effortlessly, and which requires a knowledge of the other party. You'd basically have to programme a computer with the entirety of human common sense, for it to do all the listening between the lines that we effortlessly engage in.

Woman 3 Do we have a fair chance of ever successfully negotiating our relationships, if it's a foreign language we're speaking?

Pinker Are you referring specifically to the male/female difference, or just the difference that both sexes have?

Woman 3 No, foreign languages. If it's a foreign language we're speaking.

Pinker Do you mean literally foreign language? I mean if the man is Hungarian and the woman is French, or generally?

Woman 3 No, I mean in general. I mean, for example, I am a German native, and if I speak English, do I have a fair chance of really negotiating relationships successfully?

Pinker Oh, well, I would think so. Although, as diplomats, business people, travellers soon learn, there can be miscommunications in another language. For example, if you don't know the base line level of indirectness or politeness that is standard in a culture like Japan, where a great deal of indirectness and politeness is expected. In another culture, like America, where people get to the point much

more quickly, you aren't aware of what's expected, and there can be miscommunications. If you're not aware of that particular other party, there can be miscommunications. There's also the universal difficulty of some things just being hard to articulate in any language, as in the case of a sexual relationship that's limned out in *On Chesil Beach*, where even speaking the same language doesn't get you over the barrier of the things you can't talk about.

Woman 4: I wonder if Ian could tell us, as a novelist, how much thought goes into the naming of his characters?

McEwan: Not as much as some people would like. I'm not of that school of writers who thinks that naming a character is to deeply encode a set of meanings. What I do is to cast around for names. Why do they end up attracting me? Because I don't know anyone of that name, or few people of that name. It would be hard for me to write a novel whose heroine was called Annalena, because that's the name of my wife. So I have to have a degree of unfamiliarity. But, here's a name for you, Steven. I sort of add this for your files, but it might be already in it. When I lived in Oxford, and my wife lived in London, we learnt a word from John Bayley, an academic at Oxford, as a name for our relationship, and it was 'telegamy'.

Pinker: 'Telegamy.' Oh, that's excellent.

McEwan: And we began to find this was a very useful word, for partners who live separately. They have a telegamous relationship. As soon as you said it about people, you knew that meant trains, and rush hours, and weekends, and all the complications involved. So it is the case that every now and then a word will come along and fill the gap. But as you said, even with a creative and dynamic word culture as in the United States, no one has come up for a word for the decade we're currently in, and it seems very disappointing. These aren't the Noughties, what are they?

Pinker: Yes, the zeros. Likewise the word for unmarried heterosexual partners. There isn't a perfectly good word...

McEwan: Even partner doesn't seem...

Pinker: Well, see, when I refer to my partner, then I have to say 'oh, and by the way, I'm not gay' - not that there's anything wrong with it.

This is an edited transcript of an event at the 2007 Cheltenham Literary Festival which was sponsored by the Wellcome Trust.

Nina Raine

The Sentence

Ambience of a large, echoing space. The soundscape of a Crown Court, reading itself for the day: the voices should range in age, class and sex.

- Can we have a dock officer to Court Five, please?

- Are you ready for the Judge, Counsel?

[*Echoing footsteps*]

- Judge on his way?

[*Echoing footsteps nearer*]

- He's on his way.

- Have we got a jury?

- Waiting ready.

- Morning, your honour.

[*A door opens, a sudden hush*]

- Court rise.