

architecture, generating treaties and legislation, international covenants and conventions. Cultures and practices vary, she says, but the justification for principles of justice need not be 'What agreement can we presuppose?' but rather 'What understanding and what agreement can we construct?' Some liberals would favour a conception of justice in which national or ideological boundaries would fade away from public notice; for others, O'Neill suggests, the idea of 'shared ideals' can prompt extreme cultural unquiet. The terms 'boundary' and 'border' have been given a rather broad interpretation in this challenging book, but they may best be understood as representing a global ordering within which human needs and fair social, legal and economic arrangements can find a place. Understood like this, the notion of just boundaries, supported by just laws, falls into place.

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What Kind of Creatures Are We?

By Noam Chomsky

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Decoding Chomsky: Science and Revolutionary Politics.

By Chris Knight

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Two books published in late 2016 have been causing a stir: one by Noam Chomsky, and one by fellow anarchist Chris Knight about Noam Chomsky. Chomsky's *What Kind of Creatures are we?* (hereafter *WKCW*) is a comparatively accessible addition to his oeuvre, and a good starting point for those interested in an overview of the key features of, and motivations for, the latest iteration of his 'nativist' linguistics. *WKCW*? is to be commended for its effort to communicate the central concerns of the Chomskyan linguistic project in a significantly less technical format than many of Chomsky's works. Moreover, while *WKCW*? does not explicitly entertain or make an argument for mutually supporting qualities in common between his linguistics and politics, it is noteworthy that, after having written over 100 books, Chomsky has now decided to interweave essays on

political matters with those on linguistics. This is particularly striking, given that Chris Knight's book Decoding Chomsky (hereafter DC) is a brilliant, if slightly harsh, disquisition that takes as its central argument the claim that Chomsky has purposefully obscured any relations between his linguistics and politics because they are in irreconcilable contradiction. Knight argues that if Chomsky were to take seriously the political ramifications of his linguistic work then he would have to concede that the funded work he undertook (particularly) in his early career was at fundamental odds with his political project of challenging US imperialism. By defining politics and linguistics as occupying different domains of thought, the latter being in the domain of science and knowledge, the former a tool of practical intelligence where expertise is not possible, Chomsky is charged with, in Knight's words, making activism mindless, and science tongue-tied (i.e. about political matters) (DC, 187). In this review we give an overview of Chomsky's new book and subject some of the claims therein to scrutiny, before assessing the merits of Knight's claims in light of Chomsky's new book.

WKCW? consists of four essays which between them address these questions, 'What is language? What are the limits of human understanding (if any)? And what is the common good to which we should strive?' (WKCW, 1). After lamenting the lack of clear definitions among those that have historically been assigned to language, and surveying a few of them, Chomsky proposes that the unique feature of language is in its alleged power to generate infinite combinations of linguistic structures despite being a feature of a finite system – the brain. This ability is central to what Chomsky terms the Basic Property of language, which he claims is its power to construct 'structured expressions that receive interpretations at two interfaces, sensorimotor for externalization and conceptual-intentional for mental processes' (WKCW, 4). It will come as no surprise that Chomsky is concerned overwhelmingly with the latter use: that which concerns mental processes and computation. He labels this computational system of language the 'I-language' and moves on to outline the mechanisms by which it functions. Crucially, the 'I-language' does not account for our specific everyday use of language for communicative purposes, rather it encompasses the underlying framework from which our everyday communicative language is supposedly generated. Chomsky contrasts the 'I-language' with the 'E-language', which stands for 'external language' and is used for communicative rather than computational purposes.

Chomsky's reliance on a finite vs infinite distinction here is doing substantive methodological work. This distinction that plays an

utterly pivotal role in the apparent force of his theorising is problematic. On page 2, he makes the remarkable claim that the human power of (he quotes Darwin here) 'associating together the most diversified sounds and ideas' is 'actually infinite'. This invocation of an 'actual infinity' is extraordinarily bold. He goes on (*WKCW*, 3): 'That infinite power rests in a finite brain.' 'Infinite', he seems to have stated, means 'actually', in the mathematical sense 'infinite'. But what does 'finite' mean, here? Finite as opposed to what? With what kind of brain is Chomsky contrasting our 'merely' finite brains?

One obvious possibility would be that the contrast-class is theology: that the alternative that Chomsky is imagining, an alternative infinite brain, would be the brain of gods or angels, who have the advantage of being 'unlimited' immaterial beings. This may seem an implausible way to interpret Chomsky, an ultra-rationalist and (presumably) atheist. But in fact, it turns out simply to be the literal meaning of his would-be claim. For on pages 28–9 he writes: 'if we are biological organisms, not angels, then our cognitive faculties are similar to those called "physical capacities" and should be studied much as other systems of the body are.'

It seems to us unsatisfactory to define one's field of study by contrast with something that is less false than systematically unclear. But perhaps Chomsky has much higher regard than we do for theology. Perhaps he thinks that traditional theology makes perfectly good sense, only it happens to be (provably?) false?

Chomsky famously uses a distinction made by Charles Sanders Peirce between 'problems' and 'mysteries', the former being composed of those intellectual endeavours that fall within the scope of human cognitive capacities, the latter are those questions that are beyond the scope of these capacities. (At page 27, Chomsky insists that reliance on the distinction, and acceptance of there being 'mysteries', is a truism. This is an example of a rhetorical manoeuvre repeatedly undertaken in this book, a manoeuvre which it is unfortunate to find being made by one who claims to believe in free and open inquiry; the manoeuvre of labelling his own claims as so self-evidently true that anyone questioning them must be congenitally confused. Chomsky leaves alarmingly little room for civilised discussion. This seems an authoritarianism ill-befitting an anarchist.). Chomsky claims that the human mind has a limited array of 'admissible hypotheses' that structure our scientific inquiry and cognitive attainments, and that this is just a fact of biology: 'the structural properties that provide scope also set limits' (WKCW, 30). The ramifications of this are that there exists a rather large set of knowledge that is unattainable to us because of the limits to our computational system.

In defence of this, Chomsky notes that generally theorists hold the human brain to a different explanatory standard than other parts of the body when it comes to hypotheses about innateness. He suggests that the 'gut brain' that vertebrates possess, and that is capable of mediating parts of our body's functioning without input from the brain in our heads, never has questions raised about its innateness. Chomsky attributes this double-standard to a 'methodological dualism', which is in his view unjustified given that different biological 'organs' ought to be treated with the same explanatory methodology.

If we accept that knowledge acquisition is based on innate faculties as opposed to socially constructed belief-systems then Chomsky believes that we can identify that there are inevitably cognitive limits to human understanding. This view is mutually supportive of Chomsky's relegation of the role of communication to being a secondary externalisation of the underlying language faculty. For if communication were central to the shaping of the language faculty, and that faculty is in turn central to computation, then explanatory methodologies would be forced to account for the role that 'external' social influences have upon the development of the language computational function.

However, Chomsky's methodology risks being scientistic, in the following sense; Chomsky takes mysteries to be problems that are beyond us. Problems that it just so happens our cognitive architecture is not suitable for solving. But this ignores another conceptual possibility: that there may be philosophical 'issues' that are not problems at all, neither soluble by us nor insoluble by us. (This thought is integral to Wittgenstein's philosophy. Perhaps we set ourselves insoluble 'problems', the right way of responding to which is to seek to see how they might turn out not to be problems at all, when they are re-viewed. What isn't dreamt of in Chomsky's philosophy is that there are questions which turn out not to be problems at all, because they haven't so much as been framed. These, we need freeing from.) The prejudice that anything which can seemingly be stated as a problem actually is a problem is a scientistic prejudice: one that sees only scientific problems, problems that can be solved either by us or by beings we might imagine with greater cognitive powers than us (aliens - or, better still, angels). This is a monistic way of seeing, one that doesn't consider the possibility of other ways of thinking, such as philosophical ways (and aesthetic ways, and so on).

Moreover, there is a peculiarity to Chomsky's way of handling the 'gut-brain', one that follows directly from the way in which his idea of

studying our physical capacities is *given its sense* only by contrast with some fantasised study of infinite purely mental/spiritual capacities (i.e. those of supernatural agents). It is this: Chomsky presumes we should regard the gut brain as obviously simply part of the gut, understood in some narrowly physico-biologistic terms (*WKCW*, 29–30). And he presumes we should by analogy regard the brain as simply a kind of better version of the gut-brain, one with different and more expansive built-in limitations, but still strictly limited. But these presumptions ignore another possibility: that the gut-brain should be considered truly a part of one's identity. A necessary sub-component of the organism; and the organism in turn a sub-component of the community.

Chomsky thinks we should reduce the brain to being like the gutbrain (only: less limited than it). But why not proceed *the other way around*? Why not take the gut-brain as being surprisingly like the brain? Why not take seriously that the gut inflects *who we are*? That it enables, rather than merely constraining. That people *without guts* (the phrase is telling; does our language know things that Chomsky has forgotten?) wouldn't really be people at all – and not 'merely' because they could not digest food. What if the gut-brain is part of what it is to be human, and has light shed on it by the brain, and sheds light too on the brain? Try seeing the gut-brain as more brain embodied, and brain as a way of understanding person – rather than simply as part of a biological organ.

This kind of possibility is being taken increasingly seriously in biology, and indeed in broader humanistic thinking. Chomsky's completely ignoring it, in the service of a physicalistic 'biologism' that appears to regret that we are not pure disembodied beings, is telling. (As Chomsky is quoted by Knight at his book on page 158: linguistic 'imperfections may have to do with the need to "externalise" language. If we could communicate by telepathy, they would not arise.' So that's alright then.)

Such regret also leads to the serious risk of Chomsky placing 'in the head' things that are surely in part contingent, culturally-variable, etc. Here is an example, cited by Knight at on page 163 of his book; 'There's a fixed and quite rich structure of understanding associated with the concept "house" and that's going to be cross-linguistic and it's going to arise independently of any evidence because it's just part of our nature.' This might be a surprising conclusion, to some nomads or forest-dwellers.

Having defined language as at its core a computational device that merely happens to be physically embodied, Chomsky then turns his attention to convincing the reader of the innateness of that device. He claims that 'I-language' is generated by a genetic endowment, which he calls Universal Grammar. To support the claim that what sits behind our communicative language usage is a computational language, and that what sits behind the computational structure is a genetic endowment, Chomsky draws the reader's attention to what he identifies as shared structural features across all 'E-languages'. While Chomsky does concede that field linguists have discovered a few counterexamples to the shared structural features that he pins his argument to, he does not think that those counterexamples refute the validity of his project. Instead all they show, he says, is that the postulated structure of Universal Grammar may need some tweaking or expanding (22).

computation allegedly precedes communication, Chomsky argues that 'I-languages' are far richer in terms of content than 'E-languages', claiming that 'Externalisation is rarely used. Most use of language use by far is never externalized' (WKCW, 14, sic). One curious feature of Chomsky's nativist linguistics then is that it relegates communication to a non-integral part of language. Indeed, communication does not seem to be necessary to formulate an 'I-language', and even those animals that use phonetic or signing communication, Chomsky believes, do not possess the underlying 'I-language' that is needed for those utterances to qualify as 'language' (WKCW, 42). This leaves Chomskyans in the strange position of having to accept that the ability to communicate is not necessary to have language use and nor is it sufficient to qualify as having language use.1

It is important to be clear on this point. The true radicalism – or extremism, if you prefer – of Chomsky's position, well understood by Knight, but not appreciated by many, is that language is fundamentally *nothing to do with* communication. Language, according to Chomsky, is basically about one person thinking to themselves. This *is* a radically Cartesian vision.

The alternatives to it – such as Merleau-Pontyan or Lakoffian emphasis on our mobility and embodiedness, Wittgensteinian emphasis on our forms of life as largely constitutive of our capacity for thought, or Arendtian emphasis on thinking itself as quintessentially sociopolitical – are not considered by Chomsky. Arendt or Rush Rhees would claim that you can't in the end keep the most 'basic' of language apart from conversation, dialogue. That how we think as individuals inherently *involves* our being parts of collectivities.

¹ It may also explain why Chomsky isn't a vegetarian given that communication is often cited as proof of non-human animal intelligence.

Knight takes up a further such alternative to Chomsky's methodological solipsism. He cleverly juxtaposes Marx's prioritising of life over consciousness, matter over mind and practice over theory against the Chomskyan 'Cognitive Revolution' (*DC*, 192). He makes the intriguing claim that the latter turned out to be the decisive throw of American anti-Marxism.

Chomsky states that the way that the brain 'secretes' consciousness is 'inconceivable to us, but that is not a fact about the external world but about our conscious limitations' (*WKCW*, 35). But perhaps it need not be inconceivable to us when we see ourselves, as Knight does, as social, acting, moving creatures. Rather than as isolated chunks of matter, each chunk spectating a world 'external' to itself.

Chomsky imagines a God's eye view that would enable that eye to see the answer to all problems, to know everything. He appears to think that this conception makes perfect sense; a questionable claim which he does not appear to realise is a claim at all (He in effect treats it, to use his phrase, as a 'truism'). He bars humanity from this knowledge. But, in the act of such barring, he tacitly nevertheless arrogates to himself a God's eye-view: because he thinks that he can see both sides of the limit. He thinks that he can describe what it would be for us to not be limited in the way that we are. The situation is precisely that observed by Wittgenstein, when he remarked that people like to talk about the limits of knowledge, because they secretly imagine, when they do so, that they can see over those limits...

Let us turn to what Chomsky says about the emergence of language itself. Drawing on the work of the human evolutionary scientist Ian Tattersall, who claims that language was likely acquired suddenly around 50,000-100,000 years ago, Chomsky argues that any attempt at understanding language evolution must account for the emergence of the Basic Property. It is, Chomsky claims, difficult to see how the Basic Property central to Chomskyan linguistics could have evolved over time, given its computational and allegedly 'infinite' nature. Explanations of language evolution would seem to be naturally more favourable to referentialist accounts of language use, as it is easier to postulate the gradual emergence of signs and phonetic utterances gradually becoming associated with ever more complex communicative functions. It may be this seemingly easier compatibility of evolution with referentialism that leads Chomsky to attack gradual evolutionary accounts before moving onto arguing that referentialist accounts of language use are implausible. Of particular interest is his idea that evolutionary theories fail to account for the basic structure that is common to (nearly?) all human languages, and the fact that non-human animal communication appears to be

referentialist while lacking in the computational structure that is common to human languages (WKCW, 41). If we accept that language is likely to have evolved suddenly, probably in a single mutation, and that referentialism is an implausible theory to account for our language use, then Chomsky's nativist linguistics may prove convincing. However, there are serious difficulties accepting such a claim. One specific such difficulty is in taking Chomsky's own proposal of it is as a scientific claim at all. In a 2008 interview, cited by Knight (DC, 166), Chomsky places the claim into the ever-widening class of 'truisms'. He argues that the claim that language arose in one sudden step is 'not even controversial enough to require empirical test.' Interestingly, in his new book, he has somewhat dampened that claim, describing it as the product of what 'the very limited empirical evidence indicates' (WKCW, 3). Such a dampening may possibly even be a response to his reading Knight's manuscript, alongside the arguments of other critical authors, who have increasingly questioned the rationality of speculating a single evolutionary mutation underlying language use.

By contrast, Knight develops a passionate account of the politically-engaged scientific research about the evolution of language of Sarah Hrdy et al, and their postulation of an originary 'human revolution' that saw both our radically overcoming the individualism of primates in favour of an egalitarian society and our developing language. The Hrdy-Knight claim is that the two events were part and parcel of one historical trajectory, two sides of the same coin. We find the account pretty convincing, and certainly more convincing than Chomsky's peculiar claim that language was a random onceonly mutation in some one individual's skull, a mutation which allegedly had such extraordinary selective advantage that all humans subsequently allegedly descend from this one lucky individual.

We disagree with Knight only when he takes his argument further than he needs to, feeling obliged to dress it up in the terms of science just as Chomsky did. Knight writes (DC, 233) that 'the language of science' is humanity's only 'common tongue'. But this is dangerous monistic rhetoric – and moreover it's false. Philosophy is our oldest common tongue.

Knight's 'Decoding Chomsky' is nevertheless a well-researched explanation as to why Chomsky has historically presented his linguistics as an enigmatically insular science devoid of any real-world application. Knight argues persuasively that the reason Chomsky refuses to politicise his linguistics is because if he were to do so then the resulting ideology would be counter to his anarcho-syndicalist politics (which Knight is broadly supportive of). Moreover, Knight gives

us an historical analysis of the ascent of Chomsky's linguistic rationalism to almost complete-dominance in the linguistics field, while highlighting the social and political conditions underlying that startling rise to supremacy.

The central thesis of Knight's book is that in response to competing ideological and institutional pressures, Chomsky was psychologically forced into segmenting his politics from his linguistics. Knight wants, 'to serve justice on Chomsky the scientist without doing an injustice to Chomsky the conscience of America' (*DC*, xii–xiii). He comes up with some intriguing examples of the danger inherent in the segmentation that he sees Chomsky as having conducted. Consider:

During the student upheavals at MIT in the late 1960s, Chomsky endorsed the MIT management line that development of weapons of mass destruction – research into their design – was perfectly acceptable, provided it was kept separate from subsequent deployment of such weapons. This distinction – which to my mind uncannily recalls Chomsky's distinction between 'competence' and 'performance' – met with considerable opposition from colleagues on the political left [such as Howard Zinn] (*DC*, 197).

We agree with Knight that Chomsky's politics is mainly splendid. Where we disagree with Chomsky (and agree with Knight in the criticism) is in his thinking that he has meanwhile put linguistics on a *natural*-scientific footing. Where we disagree with Knight (and would agree with Chomsky in the criticism) is in *his* thinking that linguistics is properly primarily a *social* science.

What neither Knight nor Chomsky consider is the possibility of linguistics beyond scientism *no matter of what kind*. Ultimately, we suspect, and hope to have sketched, that most of the recalcitrant 'problems' of linguistics are at root philosophical. Which, we have suggested, following Wittgenstein, means that some of them turn out not properly to be *problems* at *all*, not even 'mystery'-problems.

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