Julia Wedgwood and the Origin of Language

1. Introduction

In Victorian Britain there was a lively debate about the origin of language. Two better-known participants were Charles Darwin and the Sanskrit scholar, linguist, and founding figure in comparative religion Max Müller. Amongst the now lesser-known participants were the philologist Hensleigh Wedgwood – Darwin's brother-in-law – and Julia Wedgwood – Hensleigh's daughter and Darwin's niece. I aim here to provide the first detailed modern examination of Julia Wedgwood's interventions into the debate.¹

Her interventions are worth examining today for several reasons, the first being to shake up our preconceptions that Victorian philosophy was an all-male affair. It is often assumed that if any women managed to philosophise in this period, they must have either used the indirect medium of literature – as with George Eliot and Mrs Humphry Ward – or focused on social and political, especially feminist, issues. After all, we assume, this was an especially patriarchal period, with women excluded from universities and many learned societies and venues, so they must have concentrated their intellectual energies on opposing these exclusions or sought indirect means to get around them.²

There are elements of truth here, but as a whole these assumptions are misleading. Women were, of course, largely excluded from universities in the nineteenth century, but nonetheless many women (especially better-off ones) could take part in intellectual life, because its central location was the rich world of Victorian periodical and book publishing, from which they were not excluded. Women contributed at least 13% of all periodical content.³ This was facilitated by the fact that anonymity was normal for prose writing in British journals until the mid-1860s. Even once signature began to replace anonymity, the use of pseudonyms and initials remained common. These conventions enabled women to contribute without incurring criticism that it was gender-inappropriate. Moreover, book and periodical culture at the time was generalist rather than specialist, amateur rather than expert; academic specialisation only came in from the 1870s onwards.⁴ The generalist climate meant that women's exclusion from academia did not disqualify them from publishing, since academic qualifications or university appointments were not required for making credible intellectual interventions. Taking the opportunities thus presented, Victorian women published across every area of thought and inquiry, including philosophy.

Julia Wedgwood is a case in point: she had very wide-ranging philosophical interests. By examining her language essays, we can acquaint ourselves with this unjustly forgotten figure, who deserves recovery. Her essays shine a light on the wider world of Victorian women's philosophising and the fact that – as in Wedgwood's case – it encompassed metaphysics, ancient philosophy, and philosophy of language. Wedgwood's essays also provide an occasion to revisit the debate about the origins of language, which raised such still-relevant questions as whether meanings are entirely conventional and whether language divides human beings from animals. Müller thought it did, whereas Julia and Hensleigh Wedgwood held that language must have arisen gradually out of still-animal beginnings, just as humans have evolved from animals generally. This Victorian debate thus prefigures recent debates about whether or not the human capacity for language has evolved gradually and continuously from other forms of animal communication and behaviour. As Gregory Radick puts it, the problems at stake in the Victorian language debate "remain very much our problems".⁵

I begin by introducing Wedgwood, her work, and her language essays (Sec. 2). Then I briefly reprise the dispute between Müller and Hensleigh Wedgwood, to which Julia responded by defending the imitative theory, of which her father was another leading

exponent (Sec. 3). I set out her central defences (Sec. 4), then I evaluate them (Sec. 5). I conclude that, although the imitative theory had the merit of emphasising the continuity of human language with animal behaviours,⁶ Julia was wrong to think that this continuity must be understood in terms of imitation alone. Nevertheless, her language essays were a significant early attempt to think about language in concert with Darwin's theory of evolution.

2. Wedgwood and her Writings

Julia Wedgwood (1833-1913) was once well known for her philosophical and historical writings. So high was her standing that after her older friend Frances Power Cobbe retired to Wales, Wedgwood was said to have replaced Cobbe as the "thoughtful woman *par excellence*".⁷ Sadly, in the twentieth and twenty-first centuries Wedgwood has been largely forgotten, usually only remembered as Robert Browning's second love⁸ or for her correspondence with Darwin. In her time Wedgwood was considered worthy of attention in her own right, as Sue Brown's recent biography of Wedgwood shows.

I have already alluded to Julia's membership of the Darwin–Wedgwood dynasty. Her father was renowned in philology; her mother Fanny was a suffragist, advocate of higher education for women, salon hostess, and great friend of the polymath Harriet Martineau. Julia therefore grew up in a very stimulating, if rather overpowering, milieu. Educated mainly at home, she spent a period at a Liverpool school run by Martineau's sister Rachel, then she attended lectures at Queen's and Bedford Colleges on subjects including political economy, Latin, and logic (Bedford College was Britain's first higher education institution for women). Supplementing this with her own hard work, Wedgwood emerged extremely well informed. Taking languages as a relevant example, she knew Latin, Greek, French, Italian, and German – leading Darwin to enlist her help translating Linnaeus.

After leaving Bedford College in 1852, Wedgwood initially tried writing fiction. She brought out two novels in the 1850s, encouraged by Elizabeth Gaskell. But the first novel discomfited her father, who insisted on screening the second one, only to complain, "I am sorry you take such an uncomfortable scheme of novel; it quite gives one a pain in the stomach".⁹ Wounded, Julia abandoned fiction, concluding that, anyway, analytical work was more her forte. So began her prolific and successful non-fiction publishing career, which ranged over theology, philosophy, literary criticism, biography, and history, spanning several books and more than fifty journal articles.

Regarding books, Wedgwood's *magnum opus* was *The Moral Ideal* of 1888, an ambitious work tracing the stages of historical civilisation from ancient India and Persia, through ancient Judaea and classical Greece and Rome, into early Christianity, Western Christendom, and on to science and modernity. An updated second edition came out in 1907. Her other books were two biographies, the 1894 work *The Message of Israel in the Light of Modern Criticism*, and the 1909 essay collection *Nineteenth-Century Teachers*.

As for Wedgwood's many journal essays, the first three appeared anonymously in *Macmillan's Magazine*, followed by many more in the *Spectator* (anonymous, per editorial policy) and the *Contemporary Review* (signed, per editorial policy). She also published in the *Westminster Review*, *Cornhill, British Quarterly Review*, and *National Review*. The breadth of topics was remarkable: in the *Contemporary Review* alone, from 1872-97, she published "Female Suffrage in its Influence on Married Life", "Virgil, as a Link between the Ancient and the Modern World", "The Relation of Memory to Will", "The Moral Influence of George Eliot", "Plutarch and the Unconscious Christianity of the First Two Centuries", "Aeschylus and Shakespeare: The *Eumenides* and *Hamlet*", "Greek Mythology and the Bible", "Male and

Female Created He Them", and "Ethics and Science" – to name only a few. The *Contemporary Review*, we should note, was probably the most influential and important heavyweight journal in late nineteenth-century Britain. To give another sample, in the more popular but still influential *Spectator* her offerings, between 1871 and 1882, included "Mr. Darwin's *Descent of Man*", "Christianity and Positivism", "The Natural and the Supernatural", "The First Opponent of Christianity", "Doubting Doubt", "The Majority", and "Biography".

Her two essays on philosophy of language were "The Origin of Language: The Imitative Theory and Mr. Max Müller's Theory of Phonetic Types", published in *Macmillan's Magazine* in late 1862, and "The Origin of Language", published in the *Westminster Review* in mid-1866. The monthly *Macmillan's* was one of the key mid-century sites for philosophical discussion in Britain, while the radical-liberal *Westminster Review* was one of the most prestigious and longest-running Victorian quarterlies. Wedgwood's interventions were therefore central and not marginalia.

Since both essays appeared anonymously, how do we know she authored them? Regarding the first essay, Darwin wrote to Asa Gray in November 1862: "In the last Macmillan there is a little Review on Max Müller, – on the origin of language; (by my Brother-in-law, H. Wedgwood & his daughter) which I think is worth looking at".¹⁰ Emma Darwin likewise describes it as co-authored in another family letter.¹¹ But that same November, *Macmillan*'s editor, Alexander Macmillan, sent Wedgwood a cheque paying for her article in Vol. 6 (October). This must be the language essay, since the authorship of all other articles in this issue is known either from signatures or other sources.¹² Thus Julia was the author, though no doubt Hensleigh had some involvement.

Authorship of the *Westminster* article, however, was a mystery until recently. The piece has been recognised as important. For instance, Roy Harris included it in his anthology of

eleven major interventions in the Victorian language debate, and Gregory Radick discusses it, noting that it pursues the same "methodological case" against Müller made in Wedgwood's *Macmillan's* article.¹³ But Wedgwood's authorship of the *Westminster* piece was only identified in 2022 by Sue Brown, based jointly on correspondence and substantial overlap with the *Macmillan*'s article.¹⁴ I now want to provide further detail and evidence of these bases and how they establish Wedgwood's authorship.

The correspondence is a letter from Julia to her sister of November 1865:

Today I made Pater let me read him all my contribution and pass it through the sieve of his mind, and a deal would not go through. Oh dear how he did clear his throat and make such painful efforts to find words! I felt quite cruel, but 'twas the only way of being any use to him. I got so tired of saying "Then you don't think that relevant? – Then you can't accept that?" – However I think I can do something with the small portion of the remaining which he did not reject, which will be of use to him.¹⁵ The letter shows that Wedgwood was working on a prospective journal contribution at the end of 1865 – the right timing for this to be the *Westminster* essay of July 1866. Since Wedgwood wanted the essay to "be of use" to her father, it must have concerned language, and defended his theory of language, as the *Westminster* piece indeed does. She would hardly have forced him to "sieve" her writings on, say, feminism or religion in the same way.

As Brown surmises, having disappointed her father with her novels, Wedgwood sought to appease him by defending his language theory.¹⁶ This explains why language was one of the first topics Wedgwood turned to after abandoning fiction. It also explains why she moved away from language after 1866. Having by then found her feet as a prose writer, she had less need of her father's authorisation and approval.

Let me now document the overlap between the *Westminster* and *Macmillan's* pieces. Both articles quote the very same passage from Müller to represent his views; both articles hold that Müller is a Platonist about language, referring to Plato's *Cratylus*, and to the same passages within it;¹⁷ both articles maintain that whereas Müller distinguishes the "bow-wow" and "pooh-pooh" theories they are one and the same, and that one is the "mimetic" or "imitative" theory; both claim that only the imitative theory is truly scientific; both propose that a person artificially isolated from society would try to communicate with others by imitating the things they wanted to designate; both adduce the German *Kuh* as an imitative word and suggest that the ancient Greek word for sheep, $\mu\eta\lambda ov$ (or *mehlon*), imitated its baaing sound; both claim that babies imitate the sounds made to them by their mothers and fathers; and both argue that Müller rejects the mimetic theory above all because that theory denies any radical separation of human beings from animals.

There is even some near-paraphrase, for instance:

Our science occupies, at this day, the position of geology forty years ago. Those among us \dots may remember the smile of derision with which we heard that Scrope and Lyell were accounting for the formation of continents \dots ¹⁸

Precisely analogous to the contempt with which people now receive the hypothesis of the Mimetic School is that which was poured upon the doctrines of Scrope and Lyell when they first began to explain the present condition of the earth's surface ...¹⁹

The *Westminster* piece overlaps with other writings of Wedgwood's too. For example, it criticises Plato for presuming that Greek is the only language that discloses reality, a criticism repeated in Wedgwood's book *The Moral Ideal*.²⁰ Positivism and Christianity are contrasted in identical terms in *Westminster* and in "Christianity and Positivism": both state that whereas positivism believes in an unbroken chain of cause and effect, Christians hope and pray for divine intercession into this chain.²¹ Another clue is the appeal to Lucretius to refute conventionalism.²² Lucretius was a favourite author of Wedgwood's, often invoked and whom she later called "the only great speculative genius of Rome".²³ Arguing that he

anticipated Darwin, she translated Lucretius in a way that indeed made him sound proto-Darwinian:

We see that many conditions are necessary in order that a race should be perpetuated, and among all the animals which have existed ... [some] have perished from being unprovided with any peculiar advantage in this struggle for existence.²⁴

In *The Moral Ideal*, she portrayed Lucretius as a positivist *avant la lettre*, who banished divine agency from the world and replaced it with impersonal law.²⁵ No surprise, then, that she should appeal to him in an article explicitly adopting a positivist, evolutionary, and naturalistic account of language as the *Westminster* piece did.

Finally and perhaps most tellingly of all, the latter contains a unique and striking image – that science advances along a "zig-zag line",²⁶ which is an organising premise of Wedgwood's *Moral Ideal*: "The progress of science is the result of oscillation between opposites. We make our way up the mountain of truth, as up every other mountain, by a perpetual zig-zag".²⁷ I hope this settles the case for Wedgwood's authorship of the *Westminster* article.

3. Bow-Wow versus Ding-Dong

Wedgwood defended her father's imitative theory of language in both essays, above all against Müller. So I must briefly summarise the Müller/Hensleigh Wedgwood dispute – though only briefly, both to leave plenty of room for Julia, and because the dispute has been closely scrutinised elsewhere.²⁸

Hensleigh forwarded his imitative theory in the Introduction to his 1859 *Dictionary of English Etymology*, later expanding his case into the 1866 *On the Origin of Language* – a title modelled, imitatively, on *Origin of Species*. By then, *Origin of Language* would have been informed by his conversations with Julia. Still, it usefully draws out his earlier views, so I draw on both texts here.

The problem of the origin of language is "how to convey meaning by the intervention of signs without previous agreement as to the sense in which the signs are to be understood".²⁹ Onomatopoeia provides the answer, because anyone can perceive that an onomatopoeic utterance resembles the thing whose sound it copies.³⁰ Onomatopoeic words are usually thought to be exceptional, but "the principle of imitation has a wider range than we are at first inclined to suppose",³¹ for the first words must have been imitations of sounds. We see this most clearly with the sounds of animals: early human beings must have had a "natural tendency to name an animal … from any marked peculiarity of cry".³² From words naming animals (e.g., *crow, koka, kâka, ghâk, quaki, kaha,* from *caw*) Hensleigh proceeds to words for other sounds (e.g., *rataplan, tantan, parapatapan, tapatan*, for drumming) and then words that imitate the sounds made in spontaneous human interjections such as sighs, chortles, groans, shrieks, etc. (e.g., *puh, puf, pu, fu, fi, pouah, foei, fec 'h, faugh*, which imitate emissions of disgust).

Between Hensleigh's *Dictionary* and *Origin of Language*, Max Müller slighted the imitative theory as the "bow-wow theory" in his *Lectures on the Science of Language*.³³ Delivered at the Royal Institution in London in 1861 and 1863, these were very well attended, even by Queen Victoria herself. Ensuing press coverage gave the debate an even wider airing. Müller objected that the imitative theory works for only a few words; that even many apparently onomatopoeic words are not really so; and those that truly are (like *cuckoo*) do not derive from any primordial "roots" and thus fall outside the main body of language.³⁴

Müller understood these "roots" as follows. Thought – the rational organisation of experience under general categories – is uniquely human, and thought directly expresses itself in words because, as he later put it in the *Science of Thought*, "concepts without words

are impossible".³⁵ Words are not arbitrary, but are "always reasonable and intelligible signs of concepts".³⁶ Words only seem arbitrary because of the profusion of modern languages, but we can trace this profusion back to roots common to each language family – e.g., *name*, $n\bar{o}men$, $n\hat{a}man$ all descend from the root $N\hat{A}$, originally $GN\hat{A}$, "to know".³⁷ As in this case, our most primordial and universal categories immediately expressed themselves in "phonetic types", the roots that formed the building-blocks of ancestral languages which have since dispersed into their descendants. Over time, Indo-European languages, like languages of other families, have flowed down from these beginnings, and different belief systems with them, given the interdependence of language and thought.

Müller's critics responded by calling his theory the "ding-dong" theory, because he compared the human mind to a metal that rings out when struck, just as our minds when struck by a concept must voice it.³⁸ More seriously, Hensleigh replied that the "bow-wow" theory had a wider scope than Müller allowed, because it could account for how we came to name "things which do not appeal to the sense of hearing".³⁹ Words imitative of sounds are carried over to other things by analogy. For instance, we use an abruptly broken sound to imitate an abruptly broken movement (e.g. *jog, jig, dig, stagger, stab, rug, tug*), and small things are described using words imitative of short, little sounds (e.g. *tot, tit,* yielding *totter, titter, tozzo, titlark, tittle*).

However, through this very process of extending the application of imitative words, "the imitative power of words is gradually obscured by figurative use",⁴⁰ before being obscured still further by grammatical regularisation. Language's imitative origins end up largely hidden and they remain visible only in a few cases. Even so, "imitation is the only intelligible origin of language",⁴¹ so all words must have had imitative beginnings even though we cannot trace them all yet. Hensleigh also objected that Müller took "our first parents" to have been "supernaturally endowed with the power of speaking"⁴² – i.e., Müller imposed a supernatural break between humans and animals. Instead, Hensleigh insists, language must be treated as a natural phenomenon and explained scientifically, thus as having arisen from still-animal behaviour "by exceedingly slow degrees".⁴³ After all, human beings are the products of evolution, not of divine creation; this includes human beings *qua* speakers of language.

This was a crucial divide between the Wedgwoods and Müller. For Müller, the imitative theory failed to appreciate how fundamentally categories structure human experience and culture, setting us worlds apart from even the most developed animals. He declared:

The one great barrier between the brute and man is *Language*. Man speaks, and no brute has ever uttered a word. Language is our Rubicon, and no brute will ever dare cross it. This is our matter-of-fact answer to those who speak of development, who think they discover the rudiments at least of all human faculties in apes.⁴⁴

Animals cannot speak, for Müller, because they cannot think. Animals may vocalise, but without concepts behind them, such vocalisations are radically different from human speech. Therefore, no gradual evolution of language from animal behaviour is possible, and a Rubicon parts the two.

To complicate matters, though, Michela Piattelli argues that Hensleigh actually agreed with Müller that language distinguishes humankind from animals.⁴⁵ This is true; but for Hensleigh *how* we have acquired this distinct capacity must be explained based on behaviour – specifically, imitation – which we share with (other) animals, though only humans have gradually developed it into language.⁴⁶ Yet, as Piattelli also points out, this gradualism seems contradicted by Hensleigh's claim that we must explain how "language might have come to a being in all respects like ourselves",⁴⁷ treating "primitive man" as

being no different from people today. This claim can be reconciled with his gradualism, though, if he believed not that the most primitive hominid already had all the mental powers of a civilised modern person, but rather that the same imitative instincts are found in ourselves and our ancestors, as he indeed says.⁴⁸ Ontogeny repeats phylogeny (to use the later phrase) – hence his view that infants acquire language, as primitive people did, by imitation.⁴⁹ Having said all this, though we can render Hensleigh's position consistent, there was evidently some tension amongst his formulations.

His key difference from Müller, though, was clear enough, so that "in Müller's sonorous speech, language became ... a shield against the Darwinians".⁵⁰ Consequently, Darwin sided with Hensleigh (1871: vol. 1: 56). Müller later conceded that imitation and interjection must have preceded the formation of phonetic roots – but he still held that only the latter introduced language proper, as the expression of conceptual thought (Müller 1873). The debate continued and various other figures had their say, amongst them Julia; let us turn to her.

4. Julia Wedgwood's Arguments

Hensleigh based his positive case for the imitative theory primarily on long lists of etymological derivations. In contrast, Julia's arguments for the imitative theory are primarily philosophical. Let's work through them, those in *Macmillan*'s first.⁵¹

"Is the word a mere accidental label stuck on to the thing? Or is there any inherent connexion between sounds and things?" Julia Wedgwood asks.⁵² Müller, Hensleigh, and Julia all agree that words are *not* mere accidental labels. Julia rejects conventionalism because she thinks philology has to explain why we use the words we do. To say that *cat* picks out cats merely by convention does not explain why *cat* and not *dog* is the word used.

To explain such facts, we must study language scientifically, since the scientific method has already revolutionised our knowledge of countless other fields. That method is to gather observations then infer to the best explanation of the facts observed: "Hypotheses on the Origin of Language rest on precisely the same basis as any other theory in physical sciences – on observations upon accomplished facts, and reasoning from effects to causes". To apply this method to language, we begin with words in use today – observed facts – and trace them back to their "fountainhead", reasoning from these effects to what must have been their causes.⁵³

That we must explain why we have the words we do by tracing them back to their origins, Müller and imitativists agree. Beyond that, as we have seen, Müller disparaged Hensleigh's "bow-wow" theory, along with the "pooh-pooh" – interjectional – theory.⁵⁴ Wedgwood resumes their essentials. On the bow-wow theory, all words were originally onomatopoeic, copying the sound of the thing named. On the pooh-pooh theory, words originated from primitive interjections, such as cries of fear and pain. Wedgwood argues that the two theories are really one, and that one is the "imitative theory". In the former case, people copy the sounds made by other things; in the latter, they copy the spontaneous utterances that people make themselves. Thus words arising from interjections are a subset of onomatopoeic words and *all* language, originally, was onomatopoeic.⁵⁵

Wedgwood furnishes some examples – aside from the paradigm, *cuckoo*. *Cow* comes from *Kuh*, which is identical with Sanskrit *gau*, connected with Icelandic *gauli*, linked in turn to *gaula* or *baula*, to bellow, "a word obviously imitative". *Turtle* as in "turtle-dove" descends from the Latin *turtur*, which recalls the dove's coo. *Hog* links to Breton *hocha*, to grunt. In similar ways, we can either trace (apparently) non-onomatopoeic modern words back to earlier onomatopoeic predecessors, or connect them with words in other languages that have retained their onomatopoeic origins, or both.⁵⁶ Perhaps this only works for the names of animals, which make imitable sounds? No, the same applies more generally: *murmur* is the word for all confused sound, based in imitation of the sound of running water, also yielding the related *barbarous*, linked to French *balbutier*, to stammer. *Lullaby* descends from *la la*, the softest and most easily imitable sound presented to an infant, along with *na na*, source of *niño* and, in Italian, *ninnare*, to lull or rock. Words such as *sip, tip, kip, trip* imitate the sound of something light and small.⁵⁷

Wedgwood admits that nowadays onomatopoeic origins are only "discernible here and there, like the half-obliterated writing on a palimpsest". But:

That portion of the vast growth of language which can be traced to a directly mimetic root may remain a small fraction of the whole; but, if it be the only portion whose structure is intelligible to us, ... the working of this principle is limited by our ignorance, and not by its own nature.⁵⁸

That is, though language today is only directly onomatopoeic in a few cases, these supply the clue for how to approach the rest of language. Consider that someone abroad, amongst people with whom they share no common language, will imitate sounds to make themselves understood. She takes up the widely-used example of the time which gave the "bow-wow" theory its name: an "Englishman in China ... condenses the question to his servant – 'Is this duck on my plate?' – into the syllables, 'quack-quack?' while the Chinaman makes himself perfectly intelligible by the answer 'Bow-wow''.⁵⁹ This example shows how people must have proceeded originally.

In sum, we must hypothesise that all language was onomatopoeic at first and that, therefore, if little of it remains manifestly onomatopoeic today that is only because words have gradually drifted away from their origins. Approaching the variety of languages on this hypothesis, we can detect amongst their drifts and mutations various residues of their onomatopoeic origins. If we cannot yet pick out many of these origins, that is only because the science of language is still in its infancy. The more we study words on the imitative hypothesis, the more of their imitative beginnings we will find.⁶⁰

In closing, Wedgwood acknowledges that people may think that the differences between animal imitations and modern language, as between civilised modern human beings and their "primitive" forebears, are so great that there must be a discontinuity, a break in the evolutionary chain. But in fact:

The laws which preserve are separated by no generic interval from those which produce. Nor had the young race powers different in kind from those it possesses now. The eye or the ear of a Londoner is hardly the same instrument ... as that of a North American Indian ... but the interval is one of degree alone.⁶¹

The *Westminster* article enlarges considerably on these arguments, concentrating even more squarely on methodological and philosophical considerations. Wedgwood aligns herself with science, not metaphysics. Because philology is now becoming a science, it is undergoing the same struggle between metaphysical (Müller's) and scientific (Hensleigh's) approaches⁶² which is codified in "Comte's law" of the three stages – theological, metaphysical, positive – a law that "shall commend itself as true to every thinker".⁶³ The theological view that language is divinely created has languished, but in its place the metaphysical stage, intermediate between theology and science, is alive and well in Müller's work.⁶⁴ His "mere empty abstractions … satisfy the mind with a convenient formulized statement of ignorance which it mistakes for cause".⁶⁵

In particular, Müller traces the immense variety of words back to a few hundred shared roots – phonetic types expressing our rational conceptions of the essences named. This, Wedgwood alleges, rehashes Plato's metaphysical theory of language in the *Cratylus*,⁶⁶ from which she translates a substantial excerpt,⁶⁷ covering much of lines 422e-428b. She takes Socrates to be endorsing the view that words are built from elementary letters and

syllables that unveil essences. For instance, R expresses movement, L a smooth glide. By combining these elements into words, we can represent the essences of individual objects of all kinds.

Wedgwood diverges from most subsequent interpreters of the *Cratylus*, who have taken this part of the dialogue to be satirical.⁶⁸ After all, Socrates says (in her rendition) "My own notions respecting the elementary words seem to me absurd and audacious".⁶⁹ In Wedgwood's time, the pre-eminent classicist Benjamin Jowett maintained that Plato's intention was at least partly to satirise.⁷⁰ Wedgwood knew Jowett, and was quite prepared to disagree with him.⁷¹ But clearly she interpreted Plato so as to liken him to Müller, reciprocally treating Müller as more of a Platonic realist and less of a Kantian idealist than he was – i.e., as believing that we intuit essences, rather than create categories. (Her interpretation of Müller is understandable, since he downplayed his Kantianism in the 1860s lectures.)⁷²

As Wedgwood sees it, then, the metaphysical view of language is that certain sounds are inherently suited to express certain natures of things. In Müller's version, phonetic roots, like Plato's letters, express our inherent grasp of essences. He maintains that we are inherently rational, which leads us to express essences in roots – but, Wedgwood objects, this has not actually explained anything. Phonetic types *seem* to explain, but really the concept is vacuous: "They intervene to fill a gap in the chain of cause and effect, and we know no more of them. Their operation is confined to strictly metaphysical ground".⁷³

In contrast, the "positive hypothesis" is that language originated just as it would now had someone been isolated from others and re-entered society. He would make himself understood by designating things, e.g. a sheep, by imitating their sounds – *not* by voicing a sound corresponding to the inner essence of a sheep.⁷⁴ Some root-words are even admitted by

Müllerians to be imitative, such as *pat* (fall, related to English *path*). "If this word springs from a mimetic root, why should not all others do the like?".⁷⁵

Admittedly, few words are manifestly imitative. Generally words today have no inherent connection with the objects they refer to; they are merely remote descendants of words that originally imitated sounds. But this should not lead us to adopt conventionalism. Wedgwood states "we despise the meagre conventional theory", long since refuted by Lucretius.⁷⁶ The passage from Lucretius is:

The hypothesis that in those early times someone assigned names to things, and that people learned their first words from him, is preposterous. If others had not also used words among themselves, how was the conception of their utility implanted in

him ... and it is by no means easy to tell and teach the deaf what needs to be done.⁷⁷ Lucretius continues: animals utter sounds to express their reactions; so do humans; we start to use these utterances to communicate and mark off distinct things.⁷⁸ His argument, then, is that if the link between words and things were conventional, or artificial, someone would first have to establish it. But because *ex hypothesi* language does not yet exist, no-one else could understand this person and the convention could never get started. Conversely, if others could understand that person, the links being made must rest on a natural basis already familiar to everyone, making conventions redundant. For Lucretius that natural basis is spontaneous expressions of emotional reactions – i.e., interjections or ejaculations; for Wedgwood, the natural basis is imitation; but their reasons for rejecting conventionalism are the same.

However, she continues, we should also reject the Platonic opposite extreme. The link between words and things is neither absolute (Plato, Müller) nor arbitrary but *motivated* – and by imitation.⁷⁹ Even though most words have drifted from this original motivation over time, for at least *some* words the imitative hypothesis offers a genuine explanation. This puts it qualitatively ahead of Müller's hypothesis, which is but "a fine name for our ignorance".⁸⁰

Only the mimetic theory "suggests any rational explanation of the connection of sound and sense".⁸¹ So, though we cannot yet fathom the mimetic origin of many words, the imitative hypothesis remains strongest: "Where, as in the present case, the rival cause [imitation] is one which is only known *as* a cause, the very lightest amount of positive evidence is enough to weigh down the ... scale".⁸²

Müller's view, in contrast, only seems explanatory because it draws on several intuitive prejudices. Words and things are so closely linked in our experience that certain words appear "correct", rational and irreplaceable⁸³ – e.g., we know *donation, donner, donum*, so $D\hat{A}$ seems the only possible expression of the concept *gift*. Phenomenologically, too, sounds heard appear "subjective" and interior – more so than sights seen or surfaces touched. Sounds seem peculiarly non-natural and spiritual, as if a thing's sound was already half-way to its inner meaning.⁸⁴ And this shows how Müller's theory, like Plato's, stems from a distortion of the imitative truth. We naturally imitate the sounds of things around us, but because sounds appear peculiarly "spiritual" we then misunderstand our imitative behaviour as our inner grasping of things' spiritual essences. Müller's theory is thus a mistake to which our imitative instincts lead us: imitation explains both the truth and the appeal of the false.⁸⁵

But most of all, Müller trades on our prejudices about our inherent superiority to animals. The mimetic view undermines these prejudices, just like its natural companion, Darwin's theory of evolution. On both the imitative and Darwinian hypotheses, humanity is continuous with other animals and has only gradually evolved from a still-animal condition:

We cannot go back in thought to a period when our ancestors communicated with each other by mimetic cries and gestures without going back a little further, and ask ourselves whether such creatures could, properly speaking, be called human. This, we believe, is the real stumbling block to the mimetic theory. Logic does its work in vain: a mightier adversary holds the passage to belief \dots ⁸⁶

Animals instinctively imitate one another, and likewise imitation is instinctive in us: "There is an instinct which leads us to imitation quite apart from any meaning to be conveyed in it".⁸⁷ Because we are naturally imitative, imitations are available to become vehicles of meaning. People may "shrink with abhorrence"⁸⁸ from this picture of humanity "slowly emerging from a state scarcely distinguished from that of the brutes", but such views "harmonize with every particle of evidence".⁸⁹ Like it or not, Wedgwood insists, we must drop the belief in a sharp human/animal divide and "recognise the force of the universe as *One*".⁹⁰

5. Evaluation

What value is there, now, in Wedgwood's interventions into this forgotten debate? Some might think: very little. Hans Aarsleff, for instance, found speculation about language origins pointless, saying of Hensleigh's theory only that "if he erred, he did at least, unlike Müller, stay this side of absurdity and nonsense".⁹¹ Julia's efforts to shore up an "error" may therefore seem to bear witness to her ingenuity but not much more. But that would be too hasty. For one thing, as I suggested earlier, her essays shake up our preconceptions about Victorian philosophy and the scope of women's participation in it, and they show that Julia contributed more substantially to the Victorian debate about the origin of language than has previously been appreciated. Moreover, as I have also mentioned, the essential divide between Müller and the Wedgwoods – whether or not the development of language can be accounted for in gradualist and evolutionary terms – is still a matter of live debate. This makes it worth probing further into some pros and cons of Julia's arguments.

Nouns. Wedgwood speaks of the origin of *language*, but her focus is primarily nouns, and secondarily verbs and adjectives. What about pronouns, conjunctions, prepositions? Wedgwood would not want to concede that the imitative theory only really applies to nouns, given her view that the universe is one. She would surely instead say that all words were originally imitative and that nouns only make this most apparent. But this does not help us to see *how* "and", "that", "if", etc., can possibly be mimetic when they figure in so many sentences referring to such widely varying things.

Animals. Even within nouns, Wedgwood's argument works best for words for animals, since they make characteristic sounds. Müller objected that the theory worked "for cackling hens and quacking ducks, but round that poultry yard there is a dead wall ... and behind that wall language really begins".⁹² Like Hensleigh, Julia attempts to extend the hypothesis beyond animals – first to other sounds, then other sensory qualities – but animals clearly remain the paradigm. Her defence is that we must start with the part of language that we can explain – imitatively – and, having reached that (imitative) explanation, gradually work out how it applies to remoter cases. But it does not follow that because we can explain *a* from *b*, *b* must also explain *c*, *d*, *e*, *f*, etc. Explanation *b* may work only for one class of words while the others require different explanations. This need not violate the unity of nature as long as all the explanatory factors remain natural.

Linguistic diversity and convention. Wedgwood objects that Plato and Müller cannot accommodate diverse languages: Socrates assumes that the Greek language alone speaks truth; Müller reduces diverse languages to shared roots.⁹³ Yet on the mimetic theory, too, diverse languages must descend from a common base of imitative originals. Perhaps Wedgwood could accept that, even originally, words were imitative in diverse ways. But then if (e.g.) we can imitate a dog's bark in diverse ways, convention already factors into what a particular group counts as imitating that sound. After all, in different languages dogs say

"woof, woof", woof", woof", woof", 法汪 or "wāngwāng" (Chinese), and so on. Indeed, in the example of the Englishman caught out eating dog in China, presumably the two speakers can communicate using "bow-wow" only because the Chinese speaker knows the English convention for what counts as resembling a dog's bark. Rather than convention presupposing imitation, imitation seems to presuppose convention.

Hensleigh has a reply to this problem. Our original utterances, he says, were not yet so precise as "bow-wow" but were "mere modulations in the tone of the voice without articulate utterance".94 Nicer distinctions come in later, carrying us from mere inarticulate sounds to "bow-wow" by degrees. Yet even these original "mere modulations" must have had enough shape to be recognised as imitating a dog's bark, not, say, a wolf's howl or a seal's bark. And the modulation must copy some particular type of dog's bark – a yelp, growl, whine, playful yap, loud howl, etc. So convention still comes into what "modulations" count as resembling a dog's bark, both qua bark and qua the sound of a dog – and in these imitations being taken to designate the dog rather than the bark. The idea of original imitations of animal noises, then, tacitly presupposes the involvement of convention. This need not return us to the fiction of "some genius of the pristine world conceiving the advantages of a better means of communicating with his fellows, and elaborating a system of vocal signs".⁹⁵ As long as an imitative utterance has a degree of resemblance to something perceptible, there is a basis on which a convention can form about what the imitation designates. Even so, convention must co-operate with imitation all along, rather than intervening only when language migrates away from its mimetic beginnings.

Migration away from imitative origins. Regarding this migration, as we saw earlier, Hensleigh explains that it occurs as conventions harden, grammatical rules are imposed, and – above all – originally imitative words are extended to cover non-auditory qualities and objects by analogy. We see small objects, for instance, as analogous to short little sounds, so words imitative of those sounds become applied to these objects.

However, this seems to presuppose that we have an independent impulse to find analogies and patterns between things – e.g., to map visual qualities onto aural ones – and capture these analogies in words. This point guided Jowett's response to "recent speculations about the origin and nature of language", with which he introduced his Cratylus translation.⁹⁶ In his initial 1875 response (reproduced in the 1892 edition) he objected that, although the "scientific philologist" assumes an unbroken causal chain from animals to human languageusers, the "intermediate organism which stands between man and nature" remained in fact unknown and existed merely hypothetically, not as a positive fact.⁹⁷ This seems a clear riposte to Julia Wedgwood's positivist case for imitativism. In 1892, though, Jowett conceded that language arose out of imitation and interjections, so that for thousands of years "the vocal utterance of man was intermediate between what we now call language and the cry of a bird or animal".⁹⁸ But, he continued, that was only the starting-point, into which people introduced order and fixed "definite sounds recognized by custom as the expressions of things".⁹⁹ People imposed order, he argued, using a principle of analogy – being led by reason to organise words by putting like together with like, while separating unlike from unlike. In this way language was refined, rebuilt, and systematised until it was far removed from its imitative beginnings. In this way Jowett combined Wedgwoodian imitativism with Müller's view that our minds rationally impose order on the manifold.

Perhaps Julia would reply: what is analogy, but an elaboration of imitation? In imitating the sound of a dog, a human being effects an analogy between two sets of sounds and so between the (imitative) sound and the thing. Analogy only extends imitation, and so imitation can explain not only language's origin but also its refinement – consonant with her remark that we see "in the tools which the patient architect uses to *alter* the edifice we inhabit, the

very same by which it was *erected*".¹⁰⁰ But it is equally plausible to say that imitative behaviour presupposes, all along, a propensity to seek analogies. Wedgwood would probably disagree, seeing here an appeal to some higher human power of analogical reasoning which violates the unity of nature. But if instead our propensity to seek patterns and analogies is natural, and shared with many other animals – as when, say, sheep and cows recognise the faces of other herd members, bees recognise different kinds of flowers, and birds recognise the patterns of eggs – then Wedgwood's worry about supernaturalism falls away. We can accept that, like convention, the search for analogy co-operates with imitation.

Critique of Müller. Jowett may have attempted to reconcile the Wedgwoods and Müller, but for Julia, their view and Müller's were irreconcilable because they had opposed starting-points. Müller pushes the link between word and thing back to a transcendental level, deriving this link from our rational grasp of the inner essences of things. For Wedgwood, this is not amenable to empirical verification; it is metaphysical rather than scientific, mystical rather than positive.

We might, however, judge Müller's transcendentalism to be a positive. For Wedgwood, words must have begun as imitations of sounds that we can perceive with our senses. Yet for most words we find no traces of such beginnings, even though the imitative hypothesis is supposed to be empirically based. Müller does not have this problem, since for him when we express a concept in a phonetic root, e.g. $D\hat{A}$ for *gift*, we are not copying some independently existing entity in the world but creating the category *gift* under which we may place certain things and acts. That is, for Müller, categorising is active and not passive. His view descends from Kantian idealism, on which our minds are active in structuring an intelligible world in the first place. The world's intelligibility depends on our concepts, and our simplest and most fundamental categories are expressed in phonetic roots. Perhaps what Wedgwood takes to be the strength of the imitative theory – its empiricism – is a weakness, and what she sees as Müller's weakness – his transcendentalism – is a strength.

Evolution and the human/animal divide. Wedgwood would deny that Müller's transcendentalism is a strength. On the contrary, it falsely divides humans from animals. If we say that our minds shape the intelligibility of the natural world in the first place, then these minds cannot possibly have gradually formed through evolutionary processes. The naturalist and transcendentalist perspectives are simply incompatible.

But only the former, Wedgwood insists, agrees with Darwinian evolution, which has to be accepted as a reality, deflating to the human self-image though it is. The imitative behaviours of other animal species must be accepted as the rudiments out of which human language has arisen. Admittedly, language today has travelled far from these animal origins. Yet, Wedgwood is adamant (as we have seen), language has become the supreme instrument of civilised and sophisticated thought that it is now *not* through any divine, transcendental, supernatural, or mysterious agencies but through the operation of the same natural laws and forces that drive evolution.

Wedgwood's possible inconsistency. This thorough-going naturalism about language seems not entirely to square with her two-part dialogue on evolution and religion, "The Boundaries of Science". Here Philocalos ("lover of the good") opposes evolutionary theory because it undermines our belief in God, duty, and immortality, but Philalethes ("lover of truth") convinces him that evolutionary theory can and should be accepted, since it is compatible with Christianity. God originates the stream of life; evolutionary theory charts its course once originated.¹⁰¹ In addition, God plans the basic forms of the species, and for human beings to have advanced moral, spiritual, and intellectual powers, while evolution implements the plan.¹⁰² Through the struggle and conflict of species over scarce resources, species-forms gradually become perfected, eventually producing human beings with a

physical make-up that enables them to realise the spiritual powers God always intended for them.¹⁰³

Given these religious convictions, we have to wonder whether Wedgwood entirely believed in her own thorough-going naturalism and positivism about language. Perhaps she adopted them merely strategically to commend her piece to the "Comtist coterie" behind the Westminster Review, as Brown suggests.¹⁰⁴ After all, Brown notes, Wedgwood subsequently criticised positivism, maintaining that we need Christian belief as well as positive knowledge.¹⁰⁵ On the other hand, a constant across Wedgwood's work, as Brown also shows, was her conviction that Darwin's theory of evolution must be reconciled with Christianity. From this perspective, perhaps her language essays are consistent with "Boundaries of Science". In the Westminster essay, she stresses that language has reached its height only through a long evolution, first of the species and then the refinement of imitative utterances into today's sophisticated linguistic arsenal.¹⁰⁶ Perhaps this evolution of language is part of how nature realises God's plan for us to become intelligent and rational beings. Even so, nature realises this plan operating on its own laws, without any need for God actively to intervene. Thus nature must be studied without appeal to anything supernatural or transcendent, and religious considerations must not intrude directly into scientific inquiry - as Philalethes indeed maintains in "Boundaries".¹⁰⁷

Overall assessment. To my mind, the chief merit of the imitative theory, and its advantage over Müller, is to approach language from the starting-point that human beings are continuous with animals and that supernatural breaks in the order of nature must be avoided. There must be "no chasm in the progress of the race, no exceptional agency at work during any part of its existence".¹⁰⁸ Julia's merit in particular – besides taking discussion of the imitative theory to a philosophical level – is to emphasise animal/human continuity more strongly than Hensleigh, ironing out his notes of potential inconsistency about human

uniqueness. Julia is frank: humans need to drop the self-congratulatory exceptionalism and accept their kinship with animals. No doubt this partly reflects the lifelong sympathy for animals which led her to join Cobbe's anti-vivisection campaign (as did her mother) – even though Darwin and Cobbe were bitter foes, since he wanted lighter regulation of animal experiments than Cobbe did.¹⁰⁹ Wedgwood's concern for animals even led her to donate the bulk of her (substantial) estate to animal welfare charities.¹¹⁰

Müller is right, though, that the imitative theory only readily works for a sub-set of words referring to animals. That the theory fits these words does not show that it should be applied to all words. Moreover, I have suggested, the imitative explanation can only work if we tacitly presuppose other co-operating factors. "Modulations" can only count as imitating particular animal and other sounds given a degree of convention, and we must have an impulse to seek analogies or patterns if imitation is to be extended beyond a limited subclass of words. In that case, we may as well have a theory that openly treats imitation as just one factor amongst others such as convention and analogy – and, indeed, the interjections that Wedgwood tries to reduce to imitations. On her view, we imitate other people's interjections – cries of pain, gasps of surprise, etc. – and the imitations, not the interjections themselves, are the starting-point of language. But since there must be some interjections for imitations to imitate, interjections are independently available as a potential source of language and there seems no non-partisan reason to deny that they may have contributed.

Wedgwood sought language's origins in imitation alone, though, because she assumed that only in this way could we see language as having arisen gradually out of animal behaviours, specifically imitative ones. For instance, we saw in her appeal to Lucretius that she rejected conventionalism because she thought it falsely divided putative human conventions from animal behaviour. Though Müller was no conventionalist, she rejected his idealist view for similar reasons. Insisting on our continuity with animals was her driving motivation.

But we can accept this continuity without having to follow Wedgwood in elevating imitation to the sole origin of language. Instead, language can have its sources in multiple behaviours – not only imitation – that are natural both to humans and some animals. Finding patterns and analogies, and forming conventions, are natural behaviours in which some animals engage. For instance, conventions are involved in the formation of dominance hierarchies amongst animals, while songbirds, dolphins, and monkeys all engage in social learning which leads them to transmit changing patterns of shared behaviour over time – i.e., in effect, they have cultures. For that matter, some animals entertain concepts, reason, and communicate using signals.¹¹¹

Wedgwood recognised some of this herself. Müller had objected: if human language is so continuous with animal behaviour, then why can't animals speak? She countered, "we should like to be sure of the fact before we argue about it".¹¹² She added, with reference to primates, that "why a creature who can remember, reason, and understand language cannot speak" was a separate problem from how human language *did* arise.¹¹³ She was thus aware that some animals have quite extensive cognitive capacities. She reiterated these points in an 1873 letter in Darwin, criticising Müller's "Lectures on Mr. Darwin's Philosophy of Language":

It forms no part of the task of a person who says things happened so and so, to point out why they should not have happened otherwise. ... Animals have feelings, hopes, fears, suspicions, expectations, wishes, doubts ... If you say these feelings, hopes, fears, & c., do not constitute a mind you are putting a peculiar meaning on the word *mind*. ... MM's view of animals seems to me an incomplete fragment from the automatism of Descartes.¹¹⁴

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Yet instead of looking to animals' several cognitive capacities as the rudiments out of which the human capacity for language has evolved, Wedgwood over-played a single factor, imitation. Ironically, this was predictable according to her own epistemology in *The Moral Ideal*. As we saw, for her: "Men make their way up the mountain of truth, as up every other mountain, by a perpetual zig-zag. The progress of Science is the result of oscillation between opposites".¹¹⁵ We had to zig to imitation, zag to conceptual thought, zig again to conventionalism and zag to innatism, and so on, to generate the materials for a more integrated account of language. She wrote to her friend and fellow philosopher of language, Victoria Welby, in the late 1880s:

The experience of the individual or of the race seems . . . a prism breaking the white ray of light and showing it as colour, . . . so that, according to his position, each man sees a different portion of that which in its own nature is truly one. My vision may come upon a different part of the spectrum from yours \dots ¹¹⁶

As Wedgwood had written to Welby earlier that decade, we "find our unity as we find our fractionalness".¹¹⁷ The fractions – the segments of the colour spectrum, the zigs and zags for and against the imitative theory – all have parts to play in the growth and unification of knowledge.

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² For example, Wood and Hahn, ed., *Cambridge History of Philosophy in the Nineteenth Century* and Mander, ed. *Oxford Handbook of British Philosophy in the Nineteenth Century*, cover women only apropos of feminism, while Eliot and Ward are the only women to star in Collini, *Public Moralists*. O'Neill calls the nineteenth century the "pivotal era" for women's exclusion from philosophy in "Early Modern Women Philosophers", 187.

³ Christ, "Hero as Man of Letters", 21. Indeed, both Eliot and Ward produced substantial bodies of non-fiction periodical prose before turning to literature. See respectively Pinney,

ed., Essays of George Eliot, and Houghton, ed., Wellesley Index vol. 1, 1128.

⁴ Young, Darwin's Metaphor, 125.

¹ Short accounts of her language essays can be found in Alter, *Darwinism*, 52-53; Brown, *Julia Wedgwood*, 92-94, and Radick, *Simian Tongue*, 25-26, and effectively also in 26-28 of the latter, albeit Radick does not attribute the *Westminster Review* essay discussed there to Julia. (On the attribution, see Sec. 2 of this paper).

⁵ Radick, *Simian Tongue*, 12; see also Roy Harris, "Introduction" to *Origin of Language*, xii, and Parravicini and Pievani, "Continuity and Discontinuity".

⁶ As Harris observes, "the force of invoking such factors as vocal imitation ... was precisely that these ... were not unique to *homo sapiens*" ("Introduction", x). This comes through especially clearly in Julia's version of the imitative theory.

⁷ Brown, *Julia Wedgwood*, 3, quoting the *Glasgow Herald* from 1891.

⁸ See Curle, *Broken Friendship*.

⁹ Hensleigh Wedgwood, letter to Julia Wedgwood, summer 1858.

¹⁰ Darwin, Letter to Asa Gray, 23 November 1862. Gray had been trying to persuade Darwin of the merits of Müller's theory of language; Darwin remained unconvinced and was using the Wedgwoods in his support.

¹¹ Emma Darwin, Letter to William Erasmus Darwin, 13 November 1862.

¹² Houghton, *Wellesley Index* vol. 1, 566.

¹³ See Harris, Origin of Language, ch. 5; Radick, Simian Tongue, 26.

¹⁴ Brown, Julia Wedgwood, 89-94.

¹⁵ Julia Wedgwood, Letter to Katherine Euphemia Wedgwood, Nov 5 1865.

¹⁶ Brown, Julia Wedgwood, 90.

¹⁷ *Macmillan's* says: "We wish we had space for an analysis of the dialogue [*Cratylus*], as we conceive that the phonetic types of Müller would exactly fit into the groove of the Socratic origin of language" (Wedgwood, "Origin of Language" [*Macmillan's*], 57). This is the very analysis provided in *Westminster*.

¹⁸ Wedgwood, "Origin" (Macmillan's), 60.

¹⁹ Wedgwood, "Origin of Language" (Westminster), 121.

²⁰ Wedgwood, *Moral Ideal*, 240-41.

²¹ Wedgwood, "Origin" (Westminster), 90; "Christianity and Positivism", 952.

- ²³ Wedgwood, "Natural and the Supernatural", 1341.
- ²⁴ Wedgwood, "Natural and the Supernatural", 1341, translating Lucretius, On the Nature of
- Things V.850-60 (160 in Smith's translation).
- ²⁵ Wedgwood, *Moral Ideal*, 162-167.
- ²⁶ Wedgwood, "Origin" (Westminster), 122.
- ²⁷ Wedgwood, *Moral Ideal*, 167.
- ²⁸ See e.g. Alter, *Darwinism*; Beer, "Darwin and Language Theory"; Dowling, "Victorian
- Oxford"; Nicholls, "Rhetorical Naturalisation"; Piattelli, "Language is our Rubicon";
- Radick, Simian Tongue, ch. 1. See further Davis and Nicholls, Müller and Philology, and
- Nicholls, "Comparative Method", on Müller.
- ²⁹ Hensleigh Wedgwood, Origin of Language, 13.
- ³⁰ Hensleigh Wedgwood, "Introduction" to Dictionary of English Etymology, vol. 1, iii.
- ³¹ Hensleigh Wedgwood, "Introduction", iv.
- ³² Hensleigh Wedgwood, Origin, 30.
- ³³ Müller, *Science of Language*, 372.
- ³⁴ Müller, *Science of Language*, 373-83.
- ³⁵ Müller, *Science of Thought*, 30.
- ³⁶ Müller, *Science of Thought*, 81.
- ³⁷ Müller, *Science of Thought*, 81.
- ³⁸ Müller, *Science of Language*, 402-3.
- ³⁹ Hensleigh Wedgwood, Origin, 101.
- ⁴⁰ Hensleigh Wedgwood, Origin, 128.
- ⁴¹ Hensleigh Wedgwood, Origin, 136.
- ⁴² Hensleigh Wedgwood, *Origin*, 2.

²² Wedgwood, "Origin" (Westminster), 117.

- ⁴⁴ Müller, *Science of Language*, 367.
- ⁴⁵ Piattelli, "'Language is Our Rubicon'", 105.
- ⁴⁶ Hensleigh Wedgwood, Origin, 5-6.
- ⁴⁷ Hensleigh Wedgwood, *Origin*, 7.
- ⁴⁸ Hensleigh Wedgwood, *Origin*, 10. Julia makes the same point even more clearly see
- "Origin" (Macmillan's), 60.
- ⁴⁹ Hensleigh Wedgwood, Origin, 1-2.
- ⁵⁰ Dowling, "Victorian Oxford", 161.

⁵¹ Both essays are presented as "reviews" of works by Müller and, in the *Westminster* case, also (more briefly) of Frederic Farrar's pro-imitationist *Chapters on Language*, to which Julia was sympathetic. But these were not "book reviews" in the modern sense. In the Victorian period, the review format was merely a "formal convention" giving authors "the occasion to debate important ... issues" (Oražem, *Political Economy*, 40).

- ⁵² Wedgwood, "Origin" (*Macmillan's*), 55.
- ⁵³ Wedgwood, 'Origin' (Macmillan's), 55.
- ⁵⁴ Wedgwood, "Origin" (Macmillan's), 56.
- ⁵⁵ Wedgwood, "Origin" (Macmillan's), 56.
- ⁵⁶ Wedgwood, "Origin" (Macmillan's), 57.
- ⁵⁷ Wedgwood, "Origin" (*Macmillan's*), 58-59.
- ⁵⁸ Wedgwood, "Origin" (Macmillan's), 59.
- ⁵⁹ Wedgwood, "Origin" (Macmillan's), 56.
- ⁶⁰ Wedgwood, "Origin" (Macmillan's), 60.

⁴³ Hensleigh Wedgwood, Origin, 9.

⁶¹ Wedgwood, "Origin" (*Macmillan's*), 60. Of course, Wedgwood relies on the problematic and racist assumption that Native Americans are "primitive", but that does not affect her key argument regarding continuity.

⁶² Wedgwood, "Origin" (Westminster), 88.

- ⁶³ Wedgwood, "Origin" (Westminster), 90.
- ⁶⁴ Wedgwood, "Origin" (Westminster), 92.
- ⁶⁵ Wedgwood, "Origin" (Westminster), 92.
- ⁶⁶ Wedgwood, "Origin" (Westminster), 93.
- ⁶⁷ Wedgwood, "Origin" (Westminster), 95-97.
- ⁶⁸ See Sedley, "Plato's *Cratylus*".
- ⁶⁹ Wedgwood, "Origin" (Westminster), 96.

⁷⁰ Jowett, "Introduction" to *Cratylus*, 253. This 1892 edition reproduces the initial introduction of 1875.

- ⁷¹ On her confidence to challenge Jowett, see Brown, Julia Wedgwood, 251.
- ⁷² See Radick, Simian Tongue, 40.
- ⁷³ Wedgwood, "Origin" (Westminster), 99.
- ⁷⁴ Wedgwood, "Origin" (Westminster), 99-100.
- ⁷⁵ Wedgwood, "Origin" (Westminster), 100.
- ⁷⁶ Wedgwood, "Origin" (Westminster), 117.
- ⁷⁷ On the Nature of Things V.1041-54 (165).
- ⁷⁸ On the Nature of Things V.1088-91 (165).
- ⁷⁹ Wedgwood, "Origin" (Westminster), 117-18.
- ⁸⁰ Wedgwood, "Origin" (Westminster), 104.
- ⁸¹ Wedgwood, "Origin" (Westminster), 106.
- 82 Wedgwood, "Origin" (Westminster), 100.

- ⁸³ Wedgwood, "Origin" (Westminster), 108-112.
- ⁸⁴ Wedgwood, "Origin" (Westminster), 94.
- ⁸⁵ Wedgwood, "Origin" (Westminster), 93-95.
- ⁸⁶ Wedgwood, "Origin" (Westminster), 114.
- ⁸⁷ Wedgwood, "Origin" (Westminster), 103.
- ⁸⁸ Wedgwood, "Origin" (Westminster), 114.
- ⁸⁹ Wedgwood, "Origin" (Westminster), 116.
- 90 Wedgwood, "Origin" (Westminster), 122.
- ⁹¹ Aarsleff, *Study of Language in England*, 229.
- ⁹² Müller, Science of Language, founded on Lectures, new impression, vol. 2: 386.
- 93 Wedgwood, "Origin" (Westminster), 109-110.
- 94 Hensleigh Wedgwood, Origin, 19.
- 95 Hensleigh Wedgwood, Origin, 9.
- ⁹⁶ Jowett, "Introduction" to Cratylus, 287.
- ⁹⁷ Jowett, "Introduction" to Cratylus, 292-93.
- ⁹⁸ Jowett, "Introduction" to Cratylus, 307.
- ⁹⁹ Jowett, "Introduction" to Cratylus, 308.
- ¹⁰⁰ Wedgwood, "Origin" (Macmillan's), 60.
- ¹⁰¹ Wedgwood, "Boundaries of Science", part two, 237.
- ¹⁰² Wedgwood, "Boundaries of Science", part one, 134-35.
- ¹⁰³ Wedgwood, "Boundaries", part two, 245-46.
- ¹⁰⁴ Brown, Julia Wedgwood, 92; on the "coterie", see Logan, "'I Am, My Dear Slanderer,
- Your Faithful Malignant Demon".
- ¹⁰⁵ Wedgwood, "Christianity and Positivism", 953.
- ¹⁰⁶ Wedgwood, "Origin" (Westminster), 110-11.

¹⁰⁷ Wedgwood, "Boundaries", part one, 136.

¹⁰⁸ Wedgwood, "Origin" (Westminster), 110.

¹⁰⁹ See Hamilton, "Cruelty to Animals Act", and Wedgwood, "Why Anti-Vivisectionist?".

¹¹⁰ See Brown, Julia Wedgwood, 303.

¹¹¹ From the vast literature on animal cognition, see: on animals possessing concepts, Fitch, "Animal Cognition and the Evolution of Human Language"; reasoning, Buckner, "Rational Inference"; discerning analogies, Norris "Analogical Reasoning in Animals"; recognising patterns, Stoddard *et al.*, "Pattern Recognition Algorithm"; following conventions, e.g. regarding dominance hierarchies, Stephens and Heinan, "Modeling Nonhuman Conventions"; transmitting shared cultures, Tchernichovski *et al.*, "How Social Learning Adds Up to a Culture"; communicating, Rossano and Kaufhold, "Animal Communication Overview".

¹¹² Wedgwood, "Origin" (Westminster), 112.

¹¹³ Wedgwood, "Origin" (Westminster), 113.

¹¹⁴ Wedgwood, Letter to Darwin, Aug-Sept [?] 1873. A marginal note handwritten on the letter says that she "presumably" translates from an unnamed, possibly German, review, but plausibly the letter expresses Wedgwood's own views – after all, it agrees with her points in the *Westminster* essay. Anyway, if she is translating someone else, she clearly agrees with them.

¹¹⁵ Wedgwood, *Moral Ideal*, 167.

¹¹⁶ Wedgwood, Letter to Victoria Welby, 1886-88, in Cust, ed., *Echoes of Larger Life*, 178.
¹¹⁷ Wedgwood, Letter to Victoria Welby, 1882-85, in Cust, *Echoes*, 177.