Logic In Context:

Some Considerations Concerning the Philosophy, Sociology and History of Logic

by Andrea Waddell

First Encounter with Logic: A Dialectic between Universality and Particularity

'Wherever men debate, discuss, and argue, Logic is a court of appeal in the background; whenever a man debates a matter in his own mind, a silent Logic arbitrates. No man in his senses will willingly and persistently defy a clear verdict by Logic. Whoever sets out to break Logic, as has been said, Logic will break him. For many centuries the study of Logic was an essential preliminary in higher education, and left a deep and lasting mark on the language and outlook of cultured men. Logic is in the air we breathe. Many still study it with profit, and many who have not time to study it for themselves benefit from the logical labours of past generations'. \frac{1}{2}

I will remark without hesitation that I regard the contents of this quote as arrant and polemical nonsense. It is, nonetheless, as a sociological document invaluable. For it encapsulates all of the essential features of the institution of logic. Luce paints logic as a kind of angry God watching over us. The capitalisation of 'Logic' also serves this deification. We are told that logic is silent and in the background – clearly we are being watched and judged for our logical sins. The gibberish assertion that 'Logic is in the air we breathe' specifically casts Logic as a ghostly presence - perhaps this is the guise of Holy Ghost - whether this is to be thought comforting or ominous is unclear.

The assertion that 'Whoever sets out to break Logic, as has been said, Logic will break him' is clearly saturated with the imagery of violence. It is structurally equivalent to the dictum 'Whoever lives by the sword, dies by the sword'. This, then, is logic in the role of Old Testament God. The words 'as has been said' also evoke a kind of esoteric wisdom of old which we are not permitted to question, certainly not without dreadful consequences at any rate (presumably a nasty death).

Luce also draws our attention to the role of 'Logic' in the institution of pedagogy. It has the role of socialisation. Yet this will obviously be an uncritical socialisation. We must on no account question the occultish wisdom of yore and, further, we are to be beholden to 'the logical labours of past generations'. (Presumably the 'Logician' casts logic in the role of the Son). The socialisation will also be unconscious, independent of our critical faculties. It leaves us with 'a deep and lasting mark', rather in the manner of a Jesuitical schooling. The principle role of 'Logic', then, is to make us peaceable and cultured.

I take it is unquestionably true that logic has deep-seated connections with the institution of dialectic and the domain of psychology (although formal logicians would presumably seek to question this too). However, we are given a picture of logic arbitrating over dialectic and psychology independently of the very substance of dialectical interchange or what is thought. Logic is thereby endowed with metaphors of power.

If we rejected Luce's deification of logic as such, it would follow that logic embodied social power: the capacity to wield authority, not only in the public forum of dialectic,

¹ A. A. Luce, Teach Yourself Books: Logic (English Universities Press, 1975)

but within the hidden recesses of another person's mind. This would be a possible Durkheimian critique. Emile Durkheim identified logic (as well as God) with the moral authority of society, such that when we believe we are serving logic (or God) we are actually serving society.

Lastly, Luce identifies logic with the culture of men, i.e. it is a gendered institution.

Now, paradoxically, Luce's polemic does not identify him as a logician, but rather as the antithesis of one. For his remarks would most certainly be treated with distain by any serious 'logician'. Luce's sloppy remarks are instructive for what they unconsciously reveal about the institution of logic, notwithstanding that they are remarks which the discipline of logic itself would formally reject, or at least distance itself from them as far as possible.

I have deliberately infused my interpretation of Luce's comments with the maximum of evocative imagery, because traditionally books of logic embody, by their very nature, a self-enclosed world which defies such easy psycho-social analysis. And so it is to the dry, sober world of a more serious logician, Wilfred Hodges, into which we must now plunge, in order to know something of logic as it purports to know itself. Hodges is nonetheless writing for a lay audience², so he still provides significant social imagery if only so that he can reject it as unrelated to logic.

'Logic is about consistency – but not about all types of consistency. For example, if a man supports Arsenal one day and Spurs the next, then he is fickle but not necessarily illogical. If the legal system makes divorce easy for the rich but hard and humiliating for the poor, then it is unjust but not illogical. If a woman slaps her children for telling lies, and then lies herself, she may be two-faced but she need not be illogical.

The type of consistency which concerns logicians is not justice or sincerity; it is compatibility of beliefs'.³

Now, reading Hodge's elucidation of logic straight after Luce's, we might be disappointed. Logic appears to have a very limited domain of application after all. We are told logic merely concerns consistency of beliefs. Hodges then proceeds to rudely disabuse us of any pleasant thought that this consistency of beliefs might apply to the real world. The consistency in question only applies to the special world of logic. Later on we learn how this consistency of beliefs may nonetheless manifest itself:

'Logic, then, is about beliefs and about when they are consistent with each other. But beliefs are hard to study directly: they are invisible, weightless and without perceptible odour. To ease our task, we shall think of beliefs as being expressed by written sentences' (my emphasis).

² there are practice questions at the end of each chapter

³ Wilfred Hodges, Logic (Penguin, 1991) P13

⁴ P.17

Thus having consistent beliefs is apparently not enough to count as logical, one's consistency of beliefs has to be subjected to the prodding finger of the scientist. Because beliefs betray no perceptible odour to the observing logician (or are his senses just stunted?), they must be transfigured and made public in the form of written sentences. Thus logic does not apparently really concern beliefs after all.

Now that the logician has his playthings, it will be easy to see in what sense the square peg is to be thought inconsistent with the round whole. 'Smith supports Arsenal' can be deemed inconsistent with 'Smith does not support Arsenal' or, more broadly, with 'It is not the case that Smith supports Arsenal'. This potential incompatibility is obviously of no interest whatsoever to Smith⁵, or perhaps to anyone at all.

Andrea Nye's most frequent charge against logic is what she calls Parmenidean autism. She interprets the central principle of the pre-socratic philosopher Parmenides to be 'whatever is, is; whatever is not, is not', or 'what is cannot be what is not; what is not cannot be what is'. She locates this principle to be at the heart of logic's inability to speak of the real world. Indeed, Parmenides actually understood himself to be fleeing the world of flux for the refuge of logic and truth. She understands the history of logic to be, furthermore, a reaction against this autism, which leads it, by turns, to create an ever more elaborate and artificial world, divorced from reality, in which logic can and does speak.

Whereas for Nye, the principle of non-contradiction entails a kind of autism, we should point out that for Aristotle the principle formed the condition of saying anything at all. ⁶ 'If, however, the holders of any view all speak both truth and falsity in exactly the same way, it will not be possible for anyone in these circumstances either to give utterance or say anything of content; for such a person is at the same time saying that such and such is the case and that it is not. ⁷ The issue, of course, must concern the right to make such and such an assertion in the first place. So long as our pronouncements concern the world of flux, we will be attempting to assert what is not of what is. Nye points out that the sophists co-opted Parmenides's strict principle as a license to, literally, say anything at all. ⁸

Is it at least reasonable to declare that we should not seek to assert inconsistent sentences? It is indeed the case that logic seeks to bar us from certain uses of language - but is this just petty-mindedness? As Wittgenstein put it, (quoted in Mason) 'When we say that a thing cannot be green and yellow at the same time we are excluding something, but what?' The reply was that 'We have not excluded any case at all, but rather the use of

⁸ Nye, Words of Power (Routledge, 1990) P.24

⁵ Assuming he even exists, that is; 'Smith does not support Arsenal' assumes Smith exists, whereas 'It is not the case that Smith supports Arsenal' shies away from even this assumption. In formal logic, the negation of P is always deemed to be 'It is not the case that P'.

⁶ We should point out that Parmenides did not literally describe his principle as one of non-contradiction; this is merely Nye's interpretation of his words.

⁷ Aristotle, The Metaphyics (Penguin, 1998), P.96, §4

an expression'. Mason also quotes Wittgenstein as follows: 'We exclude such sentences as 'It is both green and yellow' because we do not want to use them... Of course we *could* give these sentences sense'. I suggest such a possibility should not be thought so fantastical. We might make reference to 'a black and white cat', which is to say, it is both black and white. Obviously this should be taken to mean that the cat in question is black in some respects and white in others (under his belly, for instance). Yet, lest it be thought this meant that to say a cat is both black and white is simply a sloppy short-hand for what it really means, we could play Wittgensteinian devil's advocate and ask whether it is rather the other way round, to the effect that it is more accurate to describe a cat as simply black and white rather than attempt the potentially futile exercise of delineating the respects in which it is, respectively, black and white.

When Aristotle first formally mooted the principle of non-contradiction in The Metaphysics in the fourth century BC he attempted several different formulations of it, presumably because he was not entirely happy with any one of them. The principle was not, by contrast, the axiomatic one it is taken to be by classical modern logicians¹⁰. This was also evident from the fact that he attempted to prove it metaphysically (an axiom, by contrast, is beyond proof). Aristotle was attempting to take on a motley group of Pythagoreans and Sophists. While the latter largely enjoyed sounding paradoxical merely for rhetorical effect, the Pythagoreans passionately believed that the constituents of the world were composed of contraries, for instance, the One and the Many, or the Hot and the Cold, a doctrine which on the face of it might seem to confute the principle of noncontradiction. Thus Aristotle found it incumbent upon himself to stipulate the precise manner in which the principle of non-contradiction should be taken. His fullest statement of the principle was, to wit: 'It is impossible for the same thing at the same time both to be-in and not to be-in the same thing at the same time'. In modern symbolic logic, by contrast, the principle is simply couched as ~ (P & ~P). We should question what this is actually saying, however).

We sense that Aristotle is quite clear in his own mind about the reality of the principle, he is just straining for the right form of expression. And surely we can imagine a straightforward sense in which a cat cannot be both black and white.... in the same respect at the same time. Yet we may be flattering ourselves. Wittgenstein: 'It is queer that we should say what it is that is impossible, e.g., that the mantle piece cannot be yellow and green at the same time. In speaking of that which is impossible it seems as though we were conceiving the inconceivable' 12.

⁹ Quoted in Mason, 'Before Logic' (SUNY 2000), P.23 - original quote from Wittgenstein, Philosophical Grammar.

There are non-classical logicians, on the other hand, who disavow the principle. Brouwer's Intuitionist logic disregards the principle, for instance. Scholz stresses, however, that Brouwer never intended to declare the principle as *false*, merely to aver that 'it is not permissible to apply this principle in a bona fide mathematical proof.' Thus Scholz distinguishes Brouwer from Hegel, who explicitly rejected the principle in question, and 'whose logic asserts for every statement its being neither true nor false'. (Scholz, Concise History of Logic, Philosophical Library 1961) pp 36-37

Aristotle, The Metaphysics (Penguin, 1998), P. 88 (Gamma 3).

Mason, P.25, quoting Wittgenstein from the Yellow Book.

Thus if the possibility of inconsistent sentences is contestable from a logical point of view, then we must question the strictly logical value of consistency. However, returning to the real world, the notion of consistent beliefs obviously has a straight-forward meaning. Is maintaining consistency of beliefs even a virtue, in whatever sense we understand consistency? The critique of the supposed virtue of consistency finds support from philosophers of all hues.

Nietzsche identifies consistency with the fool-hardy psychology of conviction. For once a man has committed himself to a particular conviction, he is obliged to remain faithful to that conviction in thought and deed. First of all, Nietzsche identifies this mentality as arduously demanding. 'To carry out later, in coolness and sobriety, what a man promises or decided in passion: this demand is among the heaviest burdens oppressing mankind, 13. Nietzsche recognises that, for artists, all that matters is, indeed, to experience passion. Faithfulness to a passion manifests itself as a testament to the strength of the original passion and also serves to keep it alive and strong. Though if artists purely live to experience passion, I would suggest that that any momentary passion will suffice just as well, for presumably the heat of passion is a greater virtue that the coldness of logical consistency, although Nietzsche is not clear on his views on this point. His polemical thrust, however, is specifically to make a virtue out of inconsistency: 'Are we obliged to be faithful to our errors, even if we perceive that by this faithfulness we do damage to our higher self? No - there is no law, no obligation of that kind; we must become traitors, act unfaithfully, forsake our ideals again and again'. Nietzsche goes on to identify conviction with the necessarily reprehensible 'belief that in some point of knowledge one possesses absolute truth'.

Now let us listen to Pascal: 'Contradiction is a bad mark of truth: several things that are certain are contradicted; several false things pass without contradiction. Contradiction is not a mark of falsity, nor is non-contradiction a mark of truth'. Ironically, in contrast to Nietzsche, Pascal's remedy to the deficiencies of human reason was to surrender ourselves to faith. And, as Mason notes, for Pascal, 'the most important facts about the world – that God became man, for example – contain irremovable paradoxes'. 14

Let us not set too much store by the theological context to Pascal's thought. In this particular respect, as Nietzsche noted, faithfulness to an irrational creed can simply serve as a higher form of obdurate psychological consistency. Nietzsche quotes the fanatical slogan, once attributed to Augustine, of 'credo quia absurdum est' (I believe because it is absurd). ¹⁵

Pascal's basic critique of consistency is actually closely mirrored by a twentieth century analytic philosopher, F.P. Ramsey. While Ramsey accepted that the purpose of formal deductive logic is 'simply to ensure that our beliefs are not self-contradictory', it was also his belief that consistency may not always be 'advantageous': 'human logic or the logic of truth, which tells men how they should think, is not merely independent of but

¹³ Nietzsche, Human All Too Human (Penguin 1984), P.260 §629

¹⁴ Mason, P.10

¹⁵ Nietzsche, P.262, §630

sometimes actually incompatible with formal logic' (my emphasis). Thus, 'it may well be better to be sometimes right than never right'. 16

It is time to take stock. We have seen two wildly different characterisations of Logic. Luce casts the net as widely as possible. Logic inhabits the air we breathe, and even looks down upon as an angry god. Yet this universality draws us into absurdities. Hodges, by contrast, makes the subject of Logic as narrow as possible. Our first instinct may be that Hodges exercises praiseworthy restraint, which can only redound to Logic's credit. Yet we have seen how, on the contrary, Hodge's elucidation serves to estrange logic from the world.

To be sure, nothing we have said suggests that logic should be thought in any way inconsistent with itself. Logic is, on the contrary, a tribute to the ideal of systematicity. (Even so, no system of logic is ever entirely complete and systematic. This is the basis of challenges to classical systems of logic. Perhaps the battleground of logic is necessarily situated at the frontier along which logic most openly seeks to speak of the Real¹⁷). This systematicity endows logic with authority.

There is a significant duality in Luce's picture. Logic is both consubstantial with the air we breathe, and it is secretly arbitrating in the background. The trope of judgement is actually widespread in scholastic logic. In Kant, judgement forms one of the three mental faculties of mind, in Arnauld's Port-Royal Logic, it forms one of four faculties of mind. Yet in J.S. Mill, the metaphor of judgement comes to take centre-stage. It is used to describe Logic itself, i.e. with reference to that capitalised, reified form we have found in Luce. Mill writes that 'Logic is the common judge and arbiter of all particular investigations'. We are also told that 'It does not undertake to find evidence'. The latter qualification creates a sense of withdrawal, and reinforces the metaphor of judgement.

Thus we see how Logic can discharge authority over the world from which it has purported to withdraw. The authority Hodges devolves onto Logic feeds into Luce's God of Logic, who can then mete out its particular brand of tough justice over the world at large. The particularity of logic is an invitation to its universality. Does this mean that Luce's picture and Hodge's are merely two sides of the same coin? No, because Logic's role as judge necessitates an uncompromising sense of worldly withdrawal, in order to maintain its aura of authority. Luce profanes the sanctity of logic by disregarding this separation and allowing logic to intermingle freely with the very air we breathe. Thus, in a sense, logic must deny that legislating is what it is even doing, in order to maintain the empirical distance between legislator and legislated-over.

¹⁶ Mason, P.113

¹⁷ For instance, Brouwer's intuitionist logic denies the classical Law of the Excluded Middle (P V ~P, a particular rendering of the Law of Non-Contradiction:). Brouwer argues that this law entails illegitimate existential commitments, particularly in the case of mathematics. If we disprove 'not all S are not P', we cannot conclude an S is P; there may be no such S at all. (Scholz, History of Logic, P.26) Here, of course, we see Logic going out of its way not to pronounce on the Real, so as to all the more legitimately speak of the World of Mathematics.

This self-denial enables us to explain a curious feature of Hodge's account. We are told that if 'the legal system makes divorce easy for the rich but hard and humiliating for the poor, then it is unjust but not illogical', thus suggesting that logic has nothing to do with justice; we have no criteria for what would count as 'illogical'. Yet logic's role as judge would presumably make the law-court an ideal home for it. Indeed, Mill tells us that logic particularly concerns the business of the magistrate, the military commander, the navigator, the agriculturist, and the physician, all of whom are directly involved in judging evidence. (Mill elucidates the proper order of protocol as 1. ascertaining the facts 2. weighing the evidence 3. applying rules of inference (either their own ones, or as prescribed by others) 4. acting accordingly. We should also note in passing that the aforementioned professions are all stereotypically male ones. There is no hint that logic would be of any use to mothers, for instance.)

Nye herself remarks on the privileged place of logic in the law-court amongst other contexts: 'Logic has provided scripts for particular settings, the law court, the programmed debate, theology, science. At the same time it presents itself as universal, 18. So far we have put the matter the other way around: logic presents itself as particular, or rather, a pure singularity, and denies it can be universal. So the state of denial embodied by the disjunction between logical theory and logical practice clearly goes right to the heart of logic. So, to pursue our particular example, what relevance can logic have to the law court if it is not, as Hodges rightly notes, to deliver justice? The answer can only be that terms of logical consistency are in no way influenced by those who feel most disenfranchised by the legal process, i.e. those who feel victim to its injustice. The terms of logical consistency are laid down by the judge (or in a wider sense, by the law). Logic must deny its true juridical function in order to maintain its aura of impartiality. Similarly, logic's concern with propositions enables the necessary distance between judiciary and the consequences of its judgement extending beyond the courtroom. The beliefs of those judged-upon are certainly only indirectly relevant. As Nye is right to suggest, logic becomes a performance. It is pure theatricality.

¹⁸ Nye, P.183

Pathways to the Sociology of Logic

The forgoing might be described as a tentative exercise in the sociology of logic. Nevertheless, the very term sociology of logic may still appear a misnomer or an oxymoron. We need a variety of pathways along which to probe the notion.

Pre-History of Logic

A good foundational approach is to consider the history and pre-history of logic. This will also enable us to attain a better philosophical perspective on what, by analogy, logic is and what it isn't. It also has the advantage of approaching logic from a 'land' free of theoretical prejudice, where logic is not the *lingua franca*, and we have the freedom to make our own investigation, *without prejudice*. Yet we will begin by consideration of the pre-history of logic, for consideration of the history of logic will require we wield another multi-pronged methodological fork entirely.

Dumitriu composed a multi-volume tome on the history of logic. His work on the so-called pre-history of logic is invaluable to our purposes, in allowing us to critique the supposed necessity of the modern idea of logic. The pre-history of logic refers to the time before such a notion existed. Dumitriu cites Guido Calogero's remark that 'It seems it is not possible to avoid the paradox that the history of logic begins when logic did not yet exist' 19. Obviously the time 'before logic' can be taken in a spectrum of senses, from the mere absence of the concept itself, or perhaps the formal discipline of logic, to a concrete absence of 'logical' thinking, in whatever sense that might be taken. In a sense, the pre-history of logic leaves the modern concept of logic untouched, perhaps accentuating its boundaries. In another sense, the very possibility of a pre-history of logic serves to critique logic's very claim to be universally binding (in a Kantian sense, logic purports to incorporate not only how we ought to think but how we do already think). Calogero puts it that 'logical problems develop from primitive mental behaviour', thereby reminding us that logic involves trans-historical problems and essentially contested truths.

Dumitriu contextualises us by describing the different schools of approach which study primitive mentality: the Evolutionist school, including Durkheim and Levy-Bruhl, the Historical School, and the Structuralist school, including Levi-Strauss. It is Levy-Bruhl's "pre-logism" which most interests Dumitriu. The latter explains that Levy-Bruhl begins from Durkeim's postulate that reason is a social product, but generalises it to explain how a plurality of mental structures could evolve. Presumably therefore Levy-Bruhl distances himself from Durkeim's nominal apriorism, according to which there is a universal structure of knowledge, modelled on the Aristotelian categories, which is nonetheless socially and empirically determined²⁰. Levy-Bruhl's general understanding according to

¹⁹ Dumitriu, History of Logic, Volume 1 (Bucharest, 1977) P.3

²⁰ Durkheim, The Elementary Forms of Religious Life (OUP, 2001) P.15

which 'a particular type of society with its own institutions and moral morals will obviously develop a mentality of its own'²¹ is hardly controversial – what is interesting is how fundamentally he understands the concept of mentality. 'We must thus from the beginning give up reducing mental operations to a single type, regardless of the societies under consideration, and always explaining all the collective representations through the same psychological and logical mechanism'. ²² Levy-Bruhl's perspective is opposed by Levi-Strauss's structuralist theory, which Dumitriu describes as 'panlogistic', according to which one and the same 'structure' (or 'homologous structures') should be thought to underlie the conditions of mental life of all people at all times. Dumitriu's final point of reference on the problem of mental structures is Engels, according to whom theoretical thinking is a wholly and disparately historical product. In particular: 'The theory of the laws of thought is not in the least an everlasting truth, established once for ever.'

Dumitriu elaborates somewhat on Levy's Bruhl's seminal work 'Mental Functions in Primitive Societies'. However, the significance of 'collective representations' could be straight out of Durkheim's 'Elementary Forms of Religious Life'. Both thinkers apparently operate within a division of collective representations and rites (Durkheim) / 'social deeds' (Levy-Bruhl). Both thinkers, in a way, privilege the significance of deeds over representations. For Durkheim this partly reflects his positivist methodology, according to which fundamental collective beliefs must be visibly constituted and reinforced through periodic collective rites - yet he nonetheless stresses that both rites and representations are each moulded by the other. Yet for Levy-Bruhl, institutions, faiths and practices are *primarily* social deeds. The representations implied by those deeds are just as much social deeds.

Levy-Bruhl's well-known contribution to the sociology of logic concerns his Law of Participation. Dumitriu explains it as follows: 'Things and phenomena are linked together not only collaterally, but also by their common participation in a common invisible element which is reflected in the collective representations'²³. Now, Dumitriu uses Levy-Bruhl's example of the Bororo Indians from Central Brazil to elucidate this law, yet I suspect both the interpretation and significance accorded it may be misguided. Dumitriu explains that the Bororo live in the same region as the Arara parrots. The Bororo claim to be Arara themselves, yet not as such as a unifying symbol of the totem of the tribe²⁴. Dumitriu explains that the Indians 'claimed to be in fact, essentially, and actually parrots'. The Bororo therefore affect to contravene the principle of noncontradiction.

Now even were we to be told that the Indians also claimed to be 'physically, metaphysically, bio-chemically, and in point of truth, parrots', this could still be thought just so much froth. The fact is that the members of any totemic clan identify themselves as members of the totem-species. The identity can be expounded in many different ways but it will always be at root just that identity, no more, no less. Durkheim tells us that 'an

²¹ Dumitriu, ibid. P.4

²² Dumitriu quoting Levy Bruhl, ibid. P.4

²³ P.6

²⁴ I am actually unclear as to whether the totemic explanation is supposed to be accepted at all.

identity of name implies an identity of nature. Having the same name is not merely an external sign of having the same nature, but logically assumes it'. That this most naturally refers to personality attributes, rather than biochemical nature, does not alter the strictly logical aspect of the identity itself. Durkheim cites an anecdote from Spencer, who was discussing the topic of totem-hood with a member of a Kangaroo clan. '[He] responded by showing us a photograph we had just taken of him: 'Look, this is exactly the same thing I am. Well! It's the same with the kangaroo'25. Given that this duality of man – both man and animal - already establishes a 'shocking logic', in Durkheim's words, it is questionable that any further qualifications to the force of this totemic identity can ever provide more than metaphorical dressing. And after all, there is a limit to what else we can actually conceive that totem-membership might be supposed to mean. We thus have an obverse to Wittgenstein's 'In speaking of that which is impossible it seems as though we were conceiving the inconceivable' (see above, footnote 11). Presumably, Wittgenstein never banked on the possibility that the effort to conceive the inconceivable might concern what we were mysteriously trying to rule in, rather than vigorously attempting to rule out. Wittgenstein was of course writing for a British rather than a French market, dull common-sense over a penchant for paradox and rhetorical fireworks.

Yet it is this very note of inconceivability which excites both Levy-Bruhl and Dumitriu. Levy-Bruhl teases us thus: 'In the collective representations of primitive mentality, the objects, beings, phenomena can be, in a way we cannot understand, themselves and something different at the same time'. Dumitriu traces the notion of participation back to its roots in Plato's philosophy, where he suggests, ironically enough, it was no more comprehensible. He cites the Parmenides dialogue. When asked: "What is participation?", Socrates answers "By Jove, I don't find it easy to define it in any way" Dumitriu laconically notes, with respect to Levy-Bruhl's law, that 'by saying that this law works "in a way we cannot understand" we cannot claim to have a clear idea of its meaning.' Obviously, we can either take this observation in a mystical or a derisory sense.

the idea of a sociology of logic

Levy-Bruhl's ideas have faced scepticism, essentially because the concept of pre-logical thinking can be so easily discarded as anti-logical. Levy-Bruhl himself sought to distance himself from the concept of pre-logism, with which he is associated, because it poses too stark a duality between "our" logic and primitive logic. Levy-Bruhl's name has also become intregally connected with the whole notion of a 'sociology of logic', which for some, such as Mason, sounds instinctively paradoxical²⁸. Perhaps it should be regarded as

²⁵ Durkheim, P.104

In fact, the shadowy nature of participation is undoubtedly rooted in Plato's whole problematic ontology. As Aristotle explains so well in the Metaphysics, it is inconsistent to claim that a Form should be eternal and immutable, while the corresponding sensible object should be perishable. Yet it is just as absurd that a Form should itself too be perishable. Aristotle also presented the famous paradox of the Third Man. Because a sensible man is non-identical with the Form of Man, there must be a further, higher Form encapsulating what both have in common, and so on *ad infinitum*.

²⁷ Dumitriu, P.6

²⁸ Mason, Before Logic, P.4