FOR A CRITIQUE OF NOOLOGY*

People talk about intellectuals abdicating their responsibility, but how are they supposed to express themselves in some all-purpose medium that’s an offence to all thinking?
—Gilles Deleuze, Negotiations.

Swimming in conjecture

There is something puzzling about the legacy of ideology as a concept in political theory. Throughout the twentieth century, the notion has become so successful that it has led to the birth of new fields of inquiry (ideology theory and sociology of knowledge) as well as to the dissolution of its use in militant politics. The widely-discussed ‘end of ideology’ thesis was correct in diagnosing some radical changes between thought and practice in the 1980s and 1990s, but it also led to a neutralising of the concept. I argue in this essay that the almost complete disappearance of ideology as an operative category from debates in critical thought is a symptom of the metamorphosis of ideology itself. Ideology has become plastic and less visible than earlier, having moved from an Aristotelian or hylomorphic model to a Simondonian or post-hylomorphic structure. I will define these terms at greater length, but for now it will help to lay out the questions that drive the argument of this essay: Where is ideology located in Western societies, and what forms does it take? What tools do we have to track it down? The notion of noology that I introduce into the discussion, following Deleuze and Guattari, is an attempt to rethink ideology-critique after the dissipation of ideology; noology is the tool to track down the metamorphoses of ideology.

To assess the suitability of noology as a new operational category in critical thought, I first present a brief history of the ideology-critique tradition to record the changes in the scope and the meaning of ideology. Using Pierre Macherey’s work on the history of the concept, I will explain why it is not a coincidence that the invention of the notion was linked to educational reforms in France in the late 18th century, and why the notion soon took a pejorative meaning when it appeared

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in the political realm, with Napoleon who used it as a weapon, and Marx who borrowed it once again to politicise philosophy and critique German idealists.

Since ideology is a clumsy concept that generates degrees of polarisation and conflicting meanings, it is helpful to briefly distinguish two meanings of the term: one used in common parlance, and the other found in texts on the history of philosophy. In everyday language, ideology has retained its derogatory usage: for instance, to argue that a law or policy is ‘ideological’ means that instead of working for the citizens, members of parliament or the government attempt to use the legislative process to advance their own party doctrine. Thus, ‘ideological’ refers to the overdetermination of the government’s actions or words by a preconceived programme composed of ideas and beliefs as well as propositions and positions anchored in the doctrine of a given political party. In the vernacular then, ideology is equated with ‘doctrine’ or ‘dogma’; we ordinarily refer to a ‘conservative ideology’, a ‘socialist ideology’, or a ‘populist ideology’ and so on. But these contemporary understandings of ideology, as a set of ideas belonging to a political doctrine, are far removed from the original and the technical meaning of the term in Marx’s early texts, especially in *The German Ideology*. Étienne Balibar makes the important point that since the proletariat is formed as an antithetic instance of ideology, ‘there is no such thing as a proletarian ideology, or an ideology of the proletariat, just as… it would be absurd to talk about a materialist ideology’.¹ In short, ideology does not come predicated; it comes in the singular to denote a lasting regime of social domination. In the early Marx, ideology is always dominant, there can be no corresponding ‘materialist’, ‘dominated’ or ‘proletarian ideology’ to the ‘dominant ideology’ — and even ‘dominant ideology’ is tautological.

However, by the mid-twentieth century ideology becomes neutralised and the intelligibility of the category disappears, and with this vanishing critical theorists have gradually lost key tools to identify the social and material causes of domination. This is significant today since new political-cultural configurations and discussions regarding automation, but also migration, have brought ideology back to the fore. (add another sentence here that unpacks the reference to automation and migration) But ideology itself is not inert, and today’s ideology presents itself in a re-organised and re-materialised form compared to its original meanings in the nineteenth and early twentieth century. Ten years after the invention of Facebook and YouTube, populist discourses have multiplied with the increasing role of social media and the creation of new forms of communication: from viral videos and internet memes to push-notifications and suggested content. The forms of thought production have changed. However, by using the category of noology, we can start analysing the causes of these new forms of social domination not in terms of discourse and therefore content, as if social networks were simply empty channels through

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¹ Balibar, *Masses, Classes, Ideas*, 95. See also Balibar, *The Philosophy of Marx*, 54.
which information can travel, but in terms of their technical context beyond the metaphysical dualism of form/content.  

I want to argue in this article that we should not think of ideology-critique as discourse analysis or content analysis. The discourses on immigration, identity and nationalism should not be deemed ideological, as if the deciphering of these discourses could reveal the true nature of politics today. Although ideology as a structure is eternal, as Althusser famously argued, its forms are not perennial and the technical and medial constitution of ideology has given it its own historicity. To analyse and critique ideology today is to trace and track down the new forms of ideology, the new equipment of thought that ideology uses to constantly displace itself.

I want to move ideology-critique onto the terrain of new media and new technologies, while also moving my argument beyond the technological fetishism that would exaggerate the material realities of technical systems and participate in technological determinism or technophobia. It is not the fictionality of technics that acts on our capacity to decide and on politics more broadly, but discourses that are conditioned by the reticularity of the technical apparatuses used — in the case of immigration and nationalism, social networks such as Facebook and Twitter not only amplify what it said but actively produce new forms of speech. The conceptual distinction between the classical and Marxist notion of ideology and the notion of noology found in Deleuze and Guattari, as well as ‘infra-ideology’ developed more recently by Pierre Macherey, follows the historical changes in the modes of production as well as the modes of critique today. This article builds from previous research on the problematic of ideology in the work of Deleuze and Guattari and a reading of their work as ideology-critique. Extending Deleuze’s concept of noology, I define it as the technical life of ideology. The forgetting of ideology in poststructuralism and French philosophy in the 1970s and 1980s, particularly in the work of Lyotard, Derrida, Foucault and Deleuze, as diagnosed by Stiegler has led me to a revaluation of this problematic in deconstruction and poststructuralism, following the paths opened by Fredric Jameson and Macherey. Therefore,

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2 The social media theorist Geert Lovink has recently argued along similar lines: ‘Social networking is much more than just a dominant discourse. We need to go beyond text and images and include its software, interfaces, and networks that depend on a technical infrastructure consisting of offices and their consultants and cleaners, cables and data centers, working in close concert with the movements and habits of the connected billions’. Lovink, ‘On Social Media Ideology’, 4.


4 These modes of critique operate from the ruins of critique, see Latour, “Why Has Critique Run Out of Steam?”; Rancière, *The Emancipated Spectator*; Foster, “Post-Critical”.


7 “[T]he concept of ideology itself [is] the last and most important conceptual achievement of the enlightenment drive to banish the idols and the superstitions. It is above all in this that deconstruction, for example, is related to Marxism, as cross cousins in some extended kinship system; and that the best way to undertake the comparison would be to begin with an analysis of deconstruction as a form of Ideologiekritik, as they used to call Marxism in Germany now
I respond to this criticism by reassessing ideology-critique in this essay and its operability today after the end of Marxism, the 2008 financial crisis and the austerity politics that followed. Far from being spared by these transformations, ideology is also mutating alongside the rapid economic, technological and ecological changes of the last decade.\textsuperscript{8}

A dialogue of the deaf: a short history of ideology

In this section, I briefly recover some of the lineages of ideology-critique and ideology-theory to historicise ideology as an intelligible category. I argue that previous understandings of the concept are no longer suited to today’s capitalist system organised around data production and consumption. Since 2008, we have moved past a post-Fordist mode of production to the creation of new markets through a data-driven economy using data-mining operations and predictive algorithms. Yet, many critical theorists continue to use classical understandings of the concept, without taking into account the attentional economy at the social level and the current re-organisation of the economy around Big Data.

The term ‘ideology’ was first used by Destutt de Tracy on 20th June 1796 during a talk that he gave at the National Institute in Paris. It is not without coincidence that the term was invented during the French Revolution, a period of intense political action and thought. The peculiar history of this political concept is closely tied to a rethinking of the relation between theory and action, but it also coincides with the emergence of a new dominant class within the state in the late 18th century and early 19th century: the bourgeoisie.\textsuperscript{9} Armed with this new science of ideas, the Idéologues (as they called themselves) pursued the project to instate a new political regime amidst this period of constitutional experimentation and instability. For Foucault, the Ideologues continued to exist in classical thought’s episteme of representation, for Ideology was the new discipline which was meant to organise the space of all representation. ‘[I]t is the knowledge of all knowledges’, writes Foucault.\textsuperscript{10} As the science of ideas, Ideology is the only rational form that can be proposed not only to philosophy, but to all domains of knowledge, as its unique grammar and logic. For Foucault, by belonging to the classical episteme, the Ideologues were contested by Kant’s critical philosophy which opened a new episteme against the legitimacy of representation.

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\textsuperscript{8} This work intends to continue the far-reaching genealogy of ideology presented by George Lichtheim, from the Ideologues to the early Habermas, passing through the increasing influence of positivism on ‘ideology theories’, from socialism to sociology, in Comte and Weber, and later in Lukács and Mannheim. Yet by mostly referring to German authors, the problem of non-translatability of debates on ideology remains, something that is partly overcome by Fredric Jameson and Jan Rehmann as I will explain further down. See Lichtheim, “The Concept of Ideology”.

\textsuperscript{9} Macherey, “Idéologie, le mot, l’idée, la chose”.

\textsuperscript{10} Foucault, The Order of Things, 261, translation modified.
Yet, it is with Napoleon Bonaparte that the term ideology took its pejorative and negative meaning when the French ruler called these reformers ‘Ideologues’ with contempt, to give weight to his own declamation. The origin of the notion is both deeply political and rhetorical, for its power resided in its ability to give markers to political projects and camps. Although the denominations ‘right-wing’ and ‘left-wing’ also originated in the French revolution, these should not be confused with ideology. The emphasis on ideas, institutions and rhetoric makes ideology a philosophical issue. Napoleon denounced the legitimacy of these philosophers to claim, because of their specific competence, to have the solution to solve all social problems, in terms of governance of institutions and of the people. In Napoleon’s search for those responsible for misleading the people, Macherey notes that ‘we can say that the anti-intellectualism that inspired the pejorativisation of ideology was an avatar of anti-clericalism’. Even though the Ideologues were relatively forgotten or little discussed in 19th century France, their influence was felt again during the Third Republic when the debates on anti-clericalism, liberal republicanism and scientific education were echoed in the 1790s.

de Tracy and the other Ideologues conceived Ideology as the project of fusing ‘a philosophy and a pedagogy on the model provided by the combination of grammar and logic to codify the exercise of thought’. The Ideologues (mainly de Tracy, Cabanis, Volney) were not only involved in establishing new scientific disciplines, but were a group of committed intellectuals determined to change society on the model of these pedagogical reforms. They were driven by a ‘collective conviction’. Macherey concludes his article by noting that even though the term ideology is full of ambiguities, ‘without it, the social dimension of thought would have perhaps been left unperceived’. In 1936, Karl Mannheim reconsiders the history of the concept and notes that, ‘what is depreciated [in ideology] is the validity of the adversary’s thought because it is regarded as unrealistic’.

It is therefore the ‘political man of action’, and particularly Napoleon, who shifted the original meaning of ideology, for political purposes. Mannheim notes that the problem that is implicit in this shift of meaning is the question ‘what is really real?’; the politician claims to be ‘grounded’ in reality while the philosopher-educators have no access to the real due to their contemplative or scholastic approaches. We can see how, in Marxism, this new meaning of ideology is ‘used as a weapon by the proletariat against the dominant group’. In this sense, while ideology was linked to a reform of the school system and knowledge in general, ideology-critique was born with Napoleon and the imperative to rule.

11 Macherey, “Idéologie, le mot, l’idée, la chose”.
12 Ibid.
13 Ibid.
14 Ibid.
15 Mannheim, Ideology and Utopia, 64.
16 Ibid., 66.
In its long genealogy, the notion of ideology has become so successful that it has provided an opportunity for political as well as theoretical actors to give it their own twists and subtleties. Ernesto Laclau notes that the imperialistic success of this notion meant that the negative concept turned neutral.¹⁷ For Laclau, pre-empting his groundbreaking work on populism, ideological distortion is no longer a negative aspect of political life, on the contrary it becomes the normal device of politics, as David Marjoribanks neatly sums up: ‘Hegemonic political action seems unavoidably… distorting’.¹⁸ This is not the path that I want to take conceptually; on the contrary, the negative and pejorative connotation of ideology should be retained, while discharging its historic link with ‘false consciousness’, the base-superstructure dialectic and discourse.

The German critical theorist Jan Rehmann has recently published one of the most successful attempts to present competing understandings of the concept.¹⁹ In his large-scale study of the theories of ideology, it is evident that these traditions do not refer to one another but write past each other — Rehmann mostly studies the work of Marx and Engels, Lukacs and the Frankfurt School, Gramsci, Althusser and Althusserians, Foucault and Foucauldians, Bourdieu, and Rehmann’s mentor, W.F. Haug. But it is precisely this legacy and this dialogue of the deaf that reinforced the power of ideology both in politics and philosophy. Very broadly, and using Rehmann’s operating table, we can distinguish between an Althusserian tradition of ideology-critique, a British literary tradition (Raymond Williams, Terry Eagleton), and a German ideology-critique inherited from the critical theory tradition (Jürgen Habermas, W.F. Haug, and Rehmann himself). The thematic (rather than theory) of ideology has a much longer history that involves an even larger multitude of philosophical traditions.

Indeed, another way to look at the thematic of ideology is to focus on its question: why do people fight for their subjection as if it were their emancipation?²⁰ This question was asked both by La Boètie and Spinoza much before Marx and the Marxist tradition of ideology-critique. The question and the definition of ideology existed before the word, invented by Destutt de Tracy in 1796. Deleuze and Guattari were aware of ideology’s longue durée and preferred to refer to Spinoza’s and Wilhelm Reich’s formulations of the question in Anti-Oedipus rather than entering the heated discussions on ideology that took place in the 1970s in France.²¹

In sum, the fragmentation of the theories of ideology perhaps explains in part the misunderstandings of the ideology-problem as such. The plasticity of the notion was acquired throughout the accidental life of the concept: dethroned from its foundation, it acted as a powerful

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¹⁷ Laclau, “The Death and Resurrection of the Theory of Ideology”.
¹⁸ Marjoribanks, “Ideology and Morality”.
¹⁹ Rehmann, Theories of Ideology.
²⁰ Finlayson, “On Mountains and Molehills”. Finlayson is critical of the confusion between alienation and ideology in political theory and argues that the very question that ideology attempts to answer creates the illusion that ideology is a ‘lower-class problem’ and not ‘our problem too’ (143, emphasis in the original).
²¹ For a snapshot of the effervescent debates between groups, factions and philosophies, see Balibar, “Althusser and the ‘Ideological State Apparatuses’”, xi-xii.
doubling of political reality, almost as the backstage of political action. One way to move past this tangled history would be either to drop the notion of ideology altogether, risking the neutralisation of its political currency, or to refuse to add one more theory of ideology to the kaleidoscope. I want, contrary to these two options, to emphasise the negative connotations of ideology and noology. What we need today is less a ‘theory of ideology’ than a critique of ideology.

The crutches of thought: ideology in the information age

In the previous section, I presented a brief history of ideology to emphasise the variations and transformations in the life of the concept. In spite of the mutations of the term, in connecting politics and philosophy, it continues to be a philosophical issue. The concept of noology, that I develop here after Deleuze, attempts precisely to re-historicise both ideology and ideology-critique so as to integrate within it the plasticity that the term has acquired conceptually and practically. This is an effort to move past Althusser’s own argument that ideology does not have a history since it attempts to naturalise social relations and the modes of production. The French philosopher Claude Lefort also had this concern in mind in 1974 when he presented his account of three different ideologies corresponding to different forms of modern societies: ‘bourgeois ideology’ for the 19th century, ‘totalitarian ideology’ for the mid- to late 20th century, and finally ‘invisible ideology’. This last category shares some characteristics with noology and with what I call in the next section post-hylomorphic or modulative ideology.

For Lefort, modern Western societies in 1974 were pervaded with invisible ideology that was relayed by the ‘multiplied transmission’ of social communication (radio and television). In this he follows the work of Marcuse and Baudrillard, although he takes a different path since he distinguishes radically totalitarian ideology from invisible ideology. To him television shows and televised advertisements provide the constant illusion of social relations and nearness. Working within a psychoanalytic framework based on the imaginary, the symbolic and the real, his equation of ideology with social imaginary makes his understanding of the concept relatively close to the definition provided by his contemporary, Paul Ricoeur. Although Deleuze rejected the notion of the imaginary (in favour of the Bergsonian concept of fabulation), the diagnosis of the image of thought by Deleuze and Guattari follows nicely from Lefort’s invisible ideology. For them, there

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22 For Macherey, ideology is thoroughly a philosophical issue not because it doubles political reality but because it is aporetic: ‘How is one to grasp the concept of an evanescent reality which, in its very nature, is a challenge to conceptualisation?’. Macherey, *Le Sujet des normes*, 272.


24 Ricoeur argues for a movement away from the ideology-science dialectic central to Marxists and Althusserians in the 1970s to the ideology-utopia dialectic, with hermeneutics as a guiding principle of ideology-critique. Due to their non-congruence with reality, utopia and ideology are qualified as ‘cultural imaginations’. See Ricoeur, “Science and Ideology”.

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are models of thought (noologies) that are socially shared. They draw an economy of truth and discourse: social roles are also distributed according to this model, particularly in the division of labour between theory (re)production and practice.

Thought as such is already in conformity with a model that it borrows from the State apparatus, and which defines its goals and paths, conduits, channels, organs, an entire *organon.*

They do not see any discontinuity between infrastructures and thought processes. Thought and ideas are conditioned (but not overdetermined) by the wiring of cities; contemporary cities are criss-crossed by the circuits made by mobile phone transmission towers and fibre optical cables, but also by the public transport system, soon to be disrupted by drones or self-driven cars. These infrastructures are also re-wiring not only the urban fabric but all networks including the brain and synaptic connections. Already in *Anti-Oedipus,* Deleuze and Guattari write about the hypothesis of the *Urstaat* (the original image of the despotic state-form) as pervading the brain and taking a materiality of its own:

[It] is a cerebral ideality that is added to, superimposed on the material evolution of societies, a regulating idea or principle of reflection (terror) that organizes the parts and flows into a whole.

In the same way that Deleuze and Guattari analyse how the state-form is occupying individual and collective thought, noology-critique diagnoses how technological forms integrate thought processes, especially when large tech companies such as Apple, Google, Amazon, Netflix, Airbnb and Facebook grow even bigger and more tentacular than some states. It is in this sense that desire and ideology have reintegrated with the infrastructure, and that critique and negativity have been thwarted. It is not possible to have infrastructures without producing at the same time an image of thought, the *organon* that Deleuze and Guattari evoke. However, and as I will argue in the next section, this is only the first phase of noology, in the sense of the individuating phases that Simondon refers to in his work on psycho-collective indiavuation. The second phase is a noology without a model, or at least a model-less model, an ideology that does not need to function according to the hylomorphic principle of externally giving a form to matter, but to conceive of malleable or plastic matter. When matter is understood as ‘matter-functions’ and ideas as ‘ideas-forces,’ it is based on the principle of constant adaptation or modulation to the milieu. In short, noology is a practice rather than a substance.

In the famous article ‘The Californian Ideology’ written in 1995, Richard Barbrook and Andy Cameron attempted to conceive and rethink an ideology-critique that accounts for the development of Information and Communication Technologies (ICTs) and digital media. Yet they remained at the level of hylomorphism and a traditional understanding of ideology since they

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described a social model. Beyond the new age promises of communal living and self-development, they argued that new technologies and the Silicon Valley cyber-libertarians recomposed class relations and domination between the ‘information-rich’ (also called the ‘virtual class’) and the ‘information-poor’. Although their analysis was in many ways anticipating the present situation, Barbrook and Cameron focused on possibilities rather than realities, they analysed discourses (especially those of Wired magazine) rather than infrastructures and practices. The material realities of ideology today have changed with the reconfiguration of governmentality as algorithmic governmentality. In the Big Data ideology, the promises are no longer those of Wired magazine, anticipating the Web 2.0 and the Internet of Things, but those of engineers, working for Amazon, Apple, Uber, Netflix, Google and Facebook, who sell dreams: goods being delivered by drones, self-driven taxis and so on. What is consumed today however is not the content of communication but its form, its revolutionary impulse and its corresponding self-fashioning possibilities, inscribed in its mutating forms. Ideology is both ubiquitous and chameleon-like since it is proteiform, ever-changing and mutating, creating a multitude of conformities that can be consumed as simulated singularities.

**Noology as post-hylomorphic ideology**

At this point, the work of French philosopher Gilbert Simondon is particularly useful in providing an ontogenetical framework beyond the metaphysical dualisms still present in previous, and now obsolete, understandings of ideology. Although Simondon did not refer to the notion of ideology or to politics directly, some authors have reconstructed his implicit dialogue with Marx, particularly on automation. Deleuze anticipated this political interpretation of Simondon in his famous essay on ‘Societies of Control’, when he explained that the transition from disciplinary societies to societies of control is the passage from institutions as moulds to open spaces and networks as modulation.

In criticising both the monism of substantialists and the dualism inherited from hylomorphism, Simondon forcefully argued for a critique of substance and identity in philosophy by using advancements of 20th-century science (particularly physics and biology). Simondon’s objective in his main work *L’Individuation à la lumière des notions de forme et d’information* was to critique the pervasive Aristotelian hylomorphic doctrine that opposes form and matter in philosophy since it pays no attention to the agency of technical objects. Aristotle’s and Aquinas’

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28 Barbrook and Cameron, “The Californian Ideology”. See also Valentine, “Information Technology, Ideology and Governmentality”.
29 Jameson, “The Aesthetics of Singularity,” 111-13. Deleuze notes that the enthusiasm for attending televised talk shows in their studios ‘[h]as nothing to do with beauty or thought, it’s about being in contact with the technology, touching the machinery’. Deleuze, Negotiations, 72.
30 Deleuze, Negotiations, 177-182; Yuk Hui, ‘Modulation After Control’.
31 Simondon, L’Individuation. See also Lloyd Thomas, “Rendered Plastic by Preparation: Concrete as Constant Material”.
doctrines of hylomorphism — from the Greek *hyle*, matter, and *morphe*, form — powerfully argued that being is made from the combination of matter and form, and that human work in general is to give shape or form to matter. Although hylomorphism has been challenged in the history of philosophy from Descartes onwards, it has continued to be prevalent in political and philosophical thought until today. Thus, Simondon’s philosophical work is first and foremost a creative enterprise that critiques hylomorphism and liberates technical objects from a cognitive serfdom by introducing scientific notions (such as metastability, transduction, potential, information, and quantum leap) into the humanities.

My contention is that the traditional conceptions of ideology presented earlier in the essay (as discourse or content analysis, or based on the infrastructural/superstructural and ideology/science dialectics) continue to work according to a hylomorphic doctrine and do not account for the complexities of today’s ideological forms as post-hylomorphic, that is both relational and ontogenetical. In hylomorphism ideology presents a static ontology of being while in post-hylomorphism, ideology has become infra-ideological or noological by constantly metamorphosing. We live in an ontology of becoming or ontogenesis that accounts for the singular or molecular elements at work in materials. Simondon famously describes in detail the moulding of a brick, that is often evoked as a prime example of the hylomorphic schema, to show that the complexities of this operation contest the reductive schema of hylomorphism. Contrary to this schema that abstracts the technical operation of moulding and reduces it to the combination of matter and form, he argues that it is the special properties of clay (the colloidal properties of aluminium hydrosilicate), developed in the swamp where it was extracted, that give it its plastic and mouldable structure. Yet, the mental image of moulding as an external operation simplifies this process by ignoring the potentiality of clay, especially its internal material potentiality, by only focusing on the external transformation. For Simondon, on the contrary, we should understand this operation as ‘a state of reciprocity of forces leading to equilibrium’, where the mould limits the actualisation of clay.32 This important distinction in the work of Simondon, between moulding and modulation, leads to two different senses of temporality, between a static, external and temporally closed operation, and a continuous and internal variation of form.

Hence, we should ask: what does this distinction between moulds and modulation do to ideology? But also what is the material moulded or modulated here? We know after Simondon and Deleuze that there is no inert matter, all matter comes pre-formed with an ‘internal resonance’. As Deleuze and Guattari noted, the reductive power of hylomorphism lies in its social and political uses: ‘Simondon clearly shows that the hylomorphic schema owes its power not to the technological operation but to the social model of work subsuming that operation’.33 By remaining at the hylomorphic level, traditional conceptions of ideology failed to grasp the dynamic processes of materials, be they geophysical, infrastructural or institutional. The hylomorphic mental

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32 Simondon, *L’Individuation*, 44.  
operation continues to dissociate information and its carriers while we know that by travelling through networks informational bits do not leave the network system unaffected. Hence, Simondon’s critique of hylomorphism is most relevant for the political and social terrain. In contemporary Western societies, where algorithms and automation are increasingly central to the modes of production, the image of thought or noology has passed from the operation of moulding (as with disciplinary institutions) to the operation of modulation.  

From moulds to modulation

To understand my hypothesis that today’s Western neoliberal or algorithmic societies are post-hylomorphic, we need to ask questions about the place of the production of ideology as well as it forms. I want to argue in this section that modulation and morphology are two noological operations that leave behind the traditional ideological schemas of false consciousness and hegemonic distortion. Part of the conceptual work here is to show that if Deleuze’s notion of noology were to renovate the outdated concept of ideology it would have to draw from Simondon’s critique of hylomorphism. In making these links, I refer to the work of Yuk Hui to explain Simondon’s influence on Deleuze’s thinking about modulation and neoliberal ideology (as flexibility and constant adaptation).

The difficulty with noology-critique is to pass from the philosophical and metaphysical literature on form and content – from Plato’s theory of Forms or Ideas, Aristotle’s hylomorphism and Kant’s own theory of forms as noology – to discussions on forms and content by art and media theory (like in formalism). For example, when we argue that opinions about immigration or the public debt are already ‘formed’, we picture brains as raw materials ready to be shaped externally by some media organs (newspaper, television, social media) in some majoritarian whole according to the hylomorphic schema, of shaping given matter according to a Form or an Idea. But when thinking in terms of individuation, everything is always already pre-formed and it is the variation or the modulation that matters. For instance, in their simple definition of a book, which we can extend to social media or television, Deleuze and Guattari argue that ‘a book has neither object nor subject; it is made of variously formed matters, and very different dates and speeds’. The gap between these continents of knowledge creates tensions and non-dialogues that can be productive rather than misleading. When Deleuze and Guattari want to critique ideology (as noology) at the level of form, rather than content, in its historicity, they refer to both meanings of ‘form’ (the form-content and matter-form couples). This comes forth most explicitly in their difficult distinction between ‘substance and form of content’ and ‘form and content of expression’ which, following

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34 ‘What we can do with Foucault, since he is dead, is to turn him on his head in order to show, for instance, that in algorithmic governmentality, the objective is no longer to make the bodies docile vis-a-vis the norm, but to make the norms docile regarding the body’. Rouvroy and Stiegler, “Le Régime de vérité numérique,” §69.

35 Deleuze and Guattari, A Thousand Plateaus, 3.
Hjelmslev, attempts to renew materialism from the perspective of stratification and geology.\textsuperscript{36} Every society and epoch produces its own general theory of thought, how thinking takes place, who are the thinkers or intellectuals and so on. For Deleuze, from 1962 in \textit{Nietzsche and Philosophy} until his last works, this specific and presupposed understanding of thinking is called ‘image of thought’ or noology, and the study of these images of thought that change throughout history take place before philosophy, ‘as the prolegomena to philosophy’.\textsuperscript{37} His lectures at the University of Vincennes (Paris 8) on ‘cinema and thinking’ delivered in 1984/85 were attempts to study the images of thought that take place before philosophy.

Noology has to do with forms of thought but also modes of grounding. Deleuze always insists that we need to have a connection to the very act of grounding, not only in philosophy but in thinking, and this faculty is potentially exercised in all practices, although this is not automatic. Yet today in the Global North, societies are being rematerialised and automatised by large companies of the Web, that are increasingly the world’s largest companies, as they attempt to sell their latest gadgets by pretending that thinking can be automatised, leading to a confusion between in-formation and formation. What Stiegler called ‘automatic society’ is the Global North’s tendency to use automation and robotics on the one hand, and data mining and algorithms on the other to manage and govern societies in radically new ways. Today the modes of being that are associated with neoliberal society are those of flexibility, nomadism and perpetual transformation of the self. Traditional accounts of ideology miss these individual, social and technical mutations. The ideology-critique tradition, as presented in the earlier parts of this article, relies on an idealist conception of information, that is somehow independent from material supports. While the base-superstructure conceptual framework was still operable in a hylomorphic society — in a society that opposed form and matter, soul and body, or intellectual force and physical force — in a society that has moved past those oppositions, this old Marxist conceptual framework is rendered inoperative and unnecessary.

As Yuk Hui powerfully argues in a recent article, the distinction between moulding and modulation found in Simondon’s work forms the basis for the argumentation of Deleuze’s prominent article on control societies.\textsuperscript{38} While the understanding of moulds as form-giving was an essential feature of disciplinary societies, in control societies, with the collapse of institutions,
modulation becomes central. Hui notes that Deleuze referred to and defined modulation in several places in his work, although more in a metaphysical sense than in relation to technicity (contrary to Simondon). In 1980, in *A Thousand Plateaus*, Deleuze and Guattari seem to single out modulation as a revolutionary operation compared to the disciplinary operation of moulding. They also include modulation as part of Foucault’s dynamic theory of power, against the reductive and outdated ideological analysis. Ten years later, after the ‘winter years’, Deleuze presents his self-criticism in ‘Societies of Control’, arguing that capitalist societies have integrated the modulative operation as their ontology; they have now moved past the hylomorphism of opposing matter and form to continuous and flexible operations. Modulation is now the central noological operation: companies and the market demand constant transformation, perpetual adaptations to new social and economic risks. The precarious and disenfranchised have therefore adopted defences to these new hostile neoliberal times of austerity and complacency in the form of self-preservation, self-organisation and self-entrepreneurial behaviours.

Stiegler notes that Simondon’s concepts could be recuperated by a ‘libertarian reading to describe the fundamental autonomy of technics’. In a certain sense, post-democratic neoliberal capitalism is already Simondonian, since it has integrated the critique of hylomorphism in its modulative ideology, without explicitly using Simondon’s concepts. In this passage, Stiegler refers to Simondon’s concept of ‘functional integration’ as a first reflection on marketing and the imperative of capitalist societies to create a market for new technical objects.

Following from the previous two sections on post-hylomorphic and modulative ideology, the question remains: under what forms do we find today’s ideology (or noology)? It is not in themselves that technological devices or the new disruptive start-ups are noological; it is the social, economic and technical context that allows us to point to certain practices as noological. The innovation imperative works beyond its ideological discourse or story-telling, it is through the economic systems that innovation is much more effective and prevalent. It is the role of critique to establish the social consequences of new economic and business innovations. The Web has almost become, for those giants that dominate it, a winner-takes-all market. The practices of these actors have had huge consequences for politics and state action. The constant fiscal evasion that they practice have weakened and ‘disrupted’ not only previous commercial giants (taxi companies,

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39 ‘Confinements are molds, different moldings, while controls are a modulation like a self-transmuting holding continually changing from one moment to the next’. Deleuze, *Negotiations*, 178-9.
40 ‘Molding hides or contracts an operation of modulation that is essential to matter-movement’. Deleuze and Guattari, *A Thousand Plateaus*, 562.
41 ‘[M]odern power is not at all reducible to the classical alternative “repression or ideology” but implies processes of normalization, modulation, modeling, and information that bear on language, perception, desire, movement, etc., and which proceed by way of microassemblages’. Ibid., 458.
42 Stiegler, *La Société automatique*, 151. Hui was hinting at this when he wrote that in Deleuze’s late works, ‘the concept of modulation becomes the paradigm of capitalist production’. Hui, ‘Modulation after Control’, 77.
hotel chains, supermarkets and so on) but more importantly they have also unsettled existing social and political institutions.

Hence, the militant ground of ideology-critique has also shifted. While traditional accounts of ideology used content or discourse analysis to decipher and critique from afar mystifications, politically charged and inverted realities, noology-critique operates at the infrastructural level (since the dual logic has collapsed). Two practical examples of noology-critique projects can be cited here: the first one is an insightful ethnographic work that explores morphology as an avenue for a re-materialised ideology-critique. Jonas Staal refers to revolutionary practices in the Kurdish city of Rojava (Northern Syria) as the permanent creation of forms. Staal also conceptualises ideology as form to describe ethnographically the social constructivist practices in Rojava. A second example of a changing ideology-critique is taken from the US political theorist Jodi Dean. Dean also draws from morphology but she does so in order to integrate holes, gaps and limits, to break what she calls the ‘humans-nonhumans horizontalism’. In rethinking ideology and form, Dean calls for infrastructural struggles and particularly the blockades of pipeline projects in the US that ‘can repurpose trusted or taken-for-granted forms’. These two examples of struggles in Northern Syria and in the mid-West in the US present a re-materialised ideology-critique. They aim at inverting the idealism of taking ideas for a material reality with infrastructural struggles.

The Innovation Imperative

The innovation imperative lacks a critique, something that the French historian of science Jean-Baptiste Fressoz comments on in his history of technical risks:

Innovation is political not because it produces externalities, concerned individuals, a discussion and a public sphere, but because it polarises the social: it produces winners and losers, wasted crops and profits, experimental subjects and vaccinated ones, satisfied consumers and mutilated workers.

The innovation imperative is noological since it naturalises the social and the historical, removes contestation and critique, to breed consent and allegiance to the status quo. It creates a situation of distrust and cynicism, where those who disrupt today will be disrupted tomorrow. But this logic can be extended to turn this critique onto itself: today’s critique will ‘become a philosophy and an ideology in its own turn and congeals into the very type of system it sought to undermine’.

43 For Staal and the people of Rajava, the parliament-form is not the only form of democratic assembly possible: ‘Ideology, in other words, has a material reality, which one can understand through morphology’. Staal, “Ideology = Form,” 5.
45 Fressoz, L’Apocalypse joyeuse, 288. See also: ‘Generally, we moved from a regulatory [réglementaire] logic in the 1970s (prohibitions, fines) to a logic of “governance” guided by economic science and market tools (taxes, rights to pollute and self-regulation of companies)” (299).
For Slavoj Žižek who reads Peter Sloterdijk, today’s ideology is cynicism or ‘enlightened false consciousness’, for it is also ‘counter-heuristic’, in so far as the capitalist ontology, by inscribing in its axiomatic the surplus value imperative, leads to the government of men by things. In this government by things, ‘to really dominate, ideology needs to do away with justification’ and manage people’s behaviours, removing speech, deliberation and discourse. This is why noology is not at the level of discourse, only those produced by their anchor in technical systems matter, but these are codes and automatic notifications rather than bifurcations. The question for noology-critique therefore to imagine bifurcations and produce a ‘noodiversity’ (in addition to a biodiversity).

To criticise this state of affairs, Fressoz wants to repoliticise history by narrating the story of losers, those who voiced their undecidability towards these innovations, chronicling their doubt and their desire for risk assessment. But the losers were not necessarily adopting conservative attitudes towards innovation, rather they were also presenting or were aspiring for alternative technical projects. It also reveals the power relations at work in the presentation of competing options. The innovation imperative works on the simulation of the new while keeping or even intensifying vertical power relations. In the same way, social media theorist Geert Lovink does not want to argue against Facebook or Twitter since social media are not optional lifestyle choices but part of the essential infrastructure of the social just like telegrams and telephones before. But these are not neutral either and the role of critique is to retain negativity: ‘we need to politicize the New Electricity, the privately-owned utilities of our century, before they disappear into the background’.

As I argued earlier, noology does not take the appearance of a fully composed discourse, it is the very milieu, the technical, material and sometimes discursive milieu in which we live, but discourse is certainly not its preferred vantage point. In noology, discourse is neutralised just like in the capitalist ontology, in which words and language do not have any currency, and are reduced to a crass pragmatism: you ‘like’ something, you ‘rate’ something, ‘post’, ‘follow’ or ‘add friends’. Its messages circulate freely and almost without any meaning, they remain at the horizontal level and do not interfere with the logic of verticalisation and domination at play in power relations. Noology does not work at the level of discourse but at the technical level. The digital infrastructures, from the privatisation of data centres to the deployment of fibre cables, are

48 Macherey, Le Sujet des normes, 277.
49 Bernard Stiegler mentioned this notion during the workshop at Radboud University, Nijmegen organised by Pieter Lemmens, Yuk Hui, Anaïs Nony and Paul Willemarck in June 2016.
50 ‘To give back to the losers of history is also heuristic since to give meaning to strange arguments demands the reconstruction of the grids of intelligibility that their defeat made invisible’. Fressoz, L’Apocalypse joyeuse, 18.
52 Rehmann, Theories of Ideology, 312-3.
governed by certain imperatives that treat and classify data according to its importance (or degrees of magnitude).

According to Hui, the technical operation of modulation materialises key social and political processes: self-regulation and the use of relays to extend and codify the space-time continuum of working time, pattern recognition and anticipation of user activities. The algorithms, invented by mathematicians trained in the best universities in the world and hired by tech companies, effectively use automatically and systematically the data of individuals to improve their services, to profile their users and make recommendations — converting, as it is well-known, individuals as subjects of intentionalities into individuals, producers of data. The social and political sphere borrows the technological and modulative notion of relay, as an electrical device that can both transmit a signal or open and close circuits, for instance in the allocation of access and privilege.

Far from simply being reducible to an internet-centrist approach, these new modulative practices implemented by tech companies are based on actuarial statistical models that were used long before the internet. These actuarial practices, the US legal theorist Jonathan Simon argues, were introduced in insurance premium setting and standardised testing in educational admissions. These were used to reduce costs, undermine discussion and dissent, but more importantly to potentially transform the way individuals understand themselves morally and politically. ‘Algorithmic governmentality’, as Antoinette Rouvroy calls it, functions on predictive technologies that attempt to convert probabilities into possibilities. By using push notifications and alerts as relays, the influence of algorithms on everyday life works at the level of reflex and instinct. Alerts, notifications and recommendations are simple sets of signal-emitting mechanisms that trigger reflexes and stimuli. Drawing from an analysis of the nature of those social relations, algorithms then build hierarchies into the data structures in coded forms, in Facebook feeds or Amazon recommendation lists, to promote efficient and personalised services, while keeping in line with the service’s own agenda of increasing the rate of profit. The behavioural patterns that enrich the service are collected through the use of such relays. In summarising Simondon’s notion of modulation, Hui points out three schemes of amplification: crowd sourcing or crowd funding, relays with the repetition of behavioural patterns, and self-regulation. While the first and the last forms of amplification are more studied in surveillance and control studies, the reference to relays also appears in Deleuze and Guattari. In fact, relays are a central element to their understanding of

56 Ibid., §25.
57 Hui, ‘Modulation after Control’, 82.
nomads, who are the conceptual revolutionaries in *A Thousand Plateaus*, replacing the schizos of *Anti-Oedipus*. They write:

The form of exteriority situates thought in a smooth space that it must occupy without counting, and for which there is no possible method, no conceivable reproduction, but only relays, intermezzos, resurgences…. An ambulant people of relayers, rather than a model society.\(^5\)

The emphasis on relays and ambulant processes are crucial to diagnosing noology, which is not a substance, but much like Simondon’s reformed notion of information: its transmission cannot be understood separately from the transformation of the metastable system it brings. After the 2008 financial crisis, capitalism has become a platform capitalism in which a new concentration of power has taken place in Silicon Valley and a new infrastructure is under construction. At the same time, social media has intensified the modulative forms of neoliberal capitalism in which the old base/superstructure formula is no longer operative. Noology-critique is therefore the project to re-appropriate and re-invent new forms of thought.

**Conclusion**

In this article, I presented some elements for a reconfiguration of ideology-critique after the crisis of Marxism and the devaluation of ideology as an operative category in critical theory. As Jameson argued, ‘something fundamental… is lost when the word “ideology” disappears’.\(^5\) In reconstituting ideology as noology, I have tried to show that in spite of the plasticity and the malleability that the category has acquired over its history, we should not renounce the negativity and critique inherent in the notion. Noology-critique should be as malleable and modulative as its problems, since noology is not made of consciousness, personalised beliefs or behaviours, but is relational, transductive and composed of relays. A resistance to modulation and social control cannot find its resources in a return to hylomorphism.\(^6\) Inventive social collective assemblages will therefore need to spontaneously ‘operat[e] by relays instead of forming an image’.\(^6\) The traditional Marxist understandings of the base-superstructure dialectic for ideological analysis, that one can still find in the influential works of Jameson and Boris Groys for instance,\(^6\) is no longer relevant since it does not take into account the constituting role of technics in the *socius*.

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6. This is a point also made by Yuk Hui, see Hui, ‘Modulation after Control’, 87.
6. Jameson, *Valences of the Dialectic*, 14, 43-48. Another influential Marxist Boris Groys also continued to use this schema when writing about the condition of art in the digital age: ‘art can be seen as a part of the superstructure or as a part of the material basis. Or, in other words, art can be understood as ideology or as technology’. Groys, “The Truth of Art,” 3.
The return of grand political problems such as new waves of migration in Europe (due to the intensification of ‘hot’ and ‘cold’ wars in the Middle-East) and the rise of security-driven racism should therefore be approached from a noology-critique, that is in terms of modulative infrastructure (like social media) rather in relation to discourses and rhetoric. Scapegoating certain groups or outlining radicals are merely symptoms and therefore noological practices. The point is to politicise the New Electricity in the age of platform geocapitalism. The current infrastructure of the social media encourage disruptions, radical speech and deviant behaviours, and it is not a coincidence if far-right parties benefit from it.63

The media is neither brainwashing people nor is it the only actor responsible for spreading populist discourses, but the wiring of society conditions the very structures of thought as well as the political decisions made by its representatives.64 Shifting from a content analysis to a formal post-hylomorphic analysis, as Deleuze and Guattari hint, means to imagine the new forms of thought that a noology-critique can put forward. Populism is a technopopulism, it functions at the level of form, the emergence of new forms online: images, short videos clips or short sentences that are easily viral, digestible or ‘mashable’, pre-packaged ‘internet memes’ that can be worn on T-shirts like \textit{prêt-à porter}, or proudly exhibited on Facebook ‘walls’ as \textit{prêt-à-penser}.65 ‘The only way to fight the neoconservative ideology is by creating new material conditions to induce a new life of ideas’.66 To think with our crutches of thought means to think with the material realities of today: the increasing automatisation of our modes of living through the use of robots and predictive technologies that work with data-mining processes and algorithms.

The eradication of negativity, separation and distance are characteristic of noology because it flattens out the social into a handful of social media apps gathering increasingly large infrastructures; hence to critique noology is eventually to draw a critical distance, a noological counter-space, other ways of thinking, that imagine a collective process beyond the fluidity of real-time emotions and pseudo-desires. But there is no going back to the moulds of the disciplinary society, noodiversity also has to be produced with modulation and social media. Changing the course of ideology-critique into a noology-critique means to study the technical conditionality of our modes of thinking and being, not because citizens are brainwashed or have a false consciousness but because there are systems of thought and attentional economies that condition

63 We can of course think of Trump’s use of Twitter and his divisive presence on other social media platforms, but also Beppe Grillo and his 5-Star movement who used digital media to broadcast its populism as well as to fashion its modern attitude have received a lot attention and attracted a large traffic on their blog before becoming the second largest party at the 2013 national elections in Italy. For a detailed analysis of the formation of this techno-populism, see Natale and Ballatore, “The web will kill them all”.
64 Antoinette Rouvroy in a recent interview intelligently suggests asking politicians, judges, lawyers, police agents and other actors to justify their decisions informed by algorithms, to avoid a situation when these actors blame the algorithms for suggesting discriminatory measures. Rouvroy with Fradin and de La Porte, “Au moins”.
individual and collective becomings as well as political action. Indeed, sleep remains the last barrier that capitalism cannot eliminate fully, although Jonathan Crary shows it is being eroded with the extension of working and waking hours.\footnote{Crary, 24/7: Late Capitalism and the Ends of Sleep, 74.}

Far from working at the level of ideas, beliefs, discourse or fiction, noology takes place at the technical level, ever changing according to the innovation imperative. Ideology as noology or infra-ideology no longer needs to be interpreted or analysed, since it does not talk to individuals but uses relays to modulate individuals according to the image of a data-quantified self. In a sense, the question ‘who are the ideologues today?’ is no longer applicable given the ends of language. We could however speculate that noologues are those infra-personal relays, those data hubs that extend reality to promise new modes of being, present new possibilities and take algorithmically assisted decisions.
References


