Language as the Key to the Epistemological Labyrinth

Turgot's Changing View of Human Perception*

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1. Introduction

'Languages are the measure of mankind's ideas', declared Anne Robert Jacques Turgot (1727–1781) in his second discourse at the Sorbonne in 1750, before abandoning an ecclesiastical career for administrative service (Turgot 1913: 223). Though he is remembered today mainly for his writings on political economy, epistemological and linguistic questions played a major role in the development of Turgot's philosophy. In an early list of works to be composed, he planned — among economic, political, and poetic endeavors — to write treatises on the origin of language, human knowledge, etymology, and 'an analysis of sensations and of language, from which [are derived] the principles of logic and universal metaphysics' (ibid., 115–116). This unaccomplished project reflects the broad interest of contemporary French authors in Locke's theory of representation and its further development by Etienne Bonnot de Condillac (1714-1780) in his Essai sur l'origine des connoissances humaines (1746). According to Condillac, reasoning — as well as any higher activity of the human mind — depended on the use of signs. Since knowledge and language were considered by Condillac to be closely related to one another, an inquiry into

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the origin of knowledge inevitably became an investigation of the manner in which arbitrary signs were acquired, a search for the origin of language. Turgot enthusiastically embarked on this quest.

I would like to trace two phases in Turgot's works concerning language and representation. At first, around 1750, he assumed a firm if hypothetical correspondence between objects, ideas, and their representation in language. This assumption, manifest in Turgot's critiques of Berkeley and Maupertuis, was rooted in a staunch belief in human ability to perceive external reality in a satisfactory manner. Turgot's initial views concerning language, perception, and external reality are presented in the first part of this article. Several years afterwards, however, Turgot cast doubt on the adequacy of human cognition and its correspondence to external reality. In the entries he contributed to volume six of the Encyclopédie (1756), Turgot admitted that definitions were sometimes impossible, generalization involved contradiction, and human perception was misleading. While Turgot was revising his epistemological views, aided by linguistic investigations, some of the leading philosophes debated similar issues. Both Condillac and Denis Diderot (1713-1782) seriously considered the challenges Berkeley's immaterialism had set for Lockean empiricism, thereby questioning or altering their own theories of knowledge. The apparent modification Turgot's convictions underwent during the 1750s is traced in the second section of the article; its third part is devoted to the context in which this change took place.

2. Turgot's critiques of Maupertuis and Berkeley (1750)

Turgot's early belief in the firmness of human perception of external objects is discernible in his remarks on works by two authors who employed linguistic inquiries in order to question the correspondence between reality and the perceiving mind: *Réflexions philosophiques sur l'origine des langues et la signification des mots* by Pierre Louis Moreau de Maupertuis (1698–1759)¹ and the immaterialist system of George Berkeley (1685–1753).²

^{1.} The *Réflexions* were usually regarded as dating from 1748, but Maupertuis's biographer David Beeson (1987) suggests they were written as early as 1740.

^{2.} Particularly his *Treatise Concerning the Principles of Human Knowledge* (1710) and *Three Dialogues between Hylas and Philonous* (1713), in Berkeley (2000: 71–251).

2.1 Ridiculing Maupertuis's doubts

Maupertuis tried to reconstruct man's first ideas by supposing himself in an imagined primordial situation, when his mind was 'empty of ideas' and assaulted by all kinds of sensations. For Maupertuis, it was precisely the use of signs in the analysis of perceptions that raised the question of how adequately we are acquainted with external reality: the linguistic analysis of perceptions might be performed in various manners, thereby leading our knowledge through diverse trajectories. Different peoples might have incommensurable 'planes of ideas', determined not by their initial perceptions but by the ways in which these were linguistically analyzed. This contention led Maupertuis to doubt the whole concept of existence, claiming that a proposition such as 'there is a tree' consisted merely of the repeated notions 'I saw a tree', 'I returned to the same place and saw the tree, and the assumption that 'every time I arrive there I should see a tree'. Thus, existence amounts to a mere conglomerate of perceptions that do not necessarily resemble their causes or external objects. Referring to the problem of sensualist epistemology (an ultimate incertitude concerning the causes of sensations), Maupertuis assumed there is a reason for the sequences of human perceptions, but since this reason is neither similar to our sense data nor resembles them, we should not try to penetrate the realm of causes (Maupertuis 1971 [1740/48]: 40-44).

Turgot's passionate critique of Maupertuis's short treatise is to be found in his Remarques critiques sur les réflexions philosophiques de Maupertuis sur l'origine des langues et la signification des mots, written in 1750. Adhering to the Enlightenment principle of the universality of human capacities, which Maupertuis himself seemed to share, Turgot dismissed the assertion of different ways of signification and perceptual analysis. According to Turgot, all human beings perceive objects in the same manner, external objects are supposed to exist as causes of perceptions, and sensations are everywhere identical, constituting the basis of similar ideas. Throughout Turgot's remarks on Maupertuis's treatise, his assurance of the existence of external bodies seems more of a common-sense belief than a rigorously defended philosophical view:

Quant à la raison pourquoi l'idée, je vois un arbre (art. XXIX de Maupertuis) succède à celle-ci, je vais dans un endroit où j'ai vu un arbre, elle est simple, c'est que l'arbre y est et Maupertuis me fait rire (1971 [1750]: 83).3

^{3.} Original emphasis, as in all following quotations.

One of the points taken more seriously by Turgot was Maupertuis's method of reconstructing the origin of language and ideas. Unlike Maupertuis, who began his reconstruction by ascribing signs to entire perceptions rather than to particular objects ('I see a tree' and not merely 'a tree'), Turgot asserted that at the first stage of cognition we are not aware of the process of perception. Initially, we only grasp objects: to gain consciousness of ourselves perceiving we must already have ideas and signs. Self-awareness, the *retour sur soi*, presupposes at least some rudiments of language (ibid., 65–66). This distinction served Turgot later in his critique of Maupertuis's doubts concerning external reality. Turgot presupposed the 'being' (*être*) of objects, easily revealed once single items are denoted instead of whole perceptions, as Maupertuis suggested. According to Turgot's *Remarques*, perceptions of specific objects naturally lead us to assume the existence of their external causes (p. 71).

[...] Si les hommes avaient toujours considéré leurs perceptions, comme fait ici Maupertuis, indépendamment de leurs objets, ils n'auraient jamais eu l'idée de *substance* ou plutôt, elle se serait confondue avec le sentiment de leurs existence propre; mais naturellement portés à supposer hors d'eux-mêmes un objet de leurs perception, tous leurs sens et tous les raisonnements qu'ils ont pu faire sur leurs sens, les ont conduits à la même opinion.⁴

Turgot declares it unnecessary to prove this point, and further claims that the fact we have different perceptions of an object under various circumstances also proves there must be an external item to which all these modifications relate. Though he admits we cannot know what is precisely the common substance of objects without access to the nature of things, Turgot is sure that such a substance exists as a common feature of external bodies, constituting their cause (ibid.):

Alors, en supposant l'existence des objets hors de nous, l'on considère l'objet total, et l'on ne saurait se tromper en répondant que c'est une substance, car le mot de substance est un nom que les hommes ont donné à l'objet existant hors d'eux auquel se rapportent leurs différentes perceptions.

As for languages, they do differ from each other due to the circumstances in which things were first encountered and the use of what Turgot calls 'crude metaphors'; there are no distinct 'planes of ideas', however, and representation

^{4.} In Turgot's articles of 1756, reviewed below, he asserts precisely what he fears here: the notion of the existence of external objects cannot be distinguished from that of the perceiving self.

adequately depicts external reality. Maupertuis's extension of his doubt, initially based on linguistic analysis, to the permanence of the self and the duration of time prompted Turgot to issue a harsh verdict (p. 83):

Pour moi, je ne sais pas goûter un pareil pyrrhonisme et il annonce, ou un fou, ou un jeu d'esprit assez déplacé pour quiconque n'est plus étudiant en métaphysique.

2.2 Tackling Berkeley's immaterialism

A similar attitude is exhibited in Turgot's letters on Berkeley's philosophical system, dating from the same year (1750) and probably written shortly after his critique of Maupertuis. Facing the crucial problem at stake — human ignorance of the manner in which perceptions correspond to their external causes — Turgot endorses a form of critical realism. The existence of external objects must be confirmed, according to Turgot, since they constitute causes of different data perceived by various senses and because they are represented by a similar order of perceptions in different minds.

Tout le rapport des moyens à leur fin, qui paraît si évidemment dans toute la nature, disparaîtrait, si tout n'etait qu'une suite d'idées. En un mot, tout est expliqué en supposant l'existence des corps; tout est obscur — et bizarre — en la niant. Combien de sensations désagréables surtout qui nous avertissent des dangers de notre corps, et qui ne seraient de la part de Dieu qu'un jeu cruel, si les corps n'existaient pas! Voilà donc les objets extérieurs démontrés à nous existants. (Turgot 1913 [1750]: 190)5

Turgot treats Berkeley's immaterialist system by predominantly relying upon common sense as a shelter from psychology-dependent reality. He does not hold that external objects perfectly resemble our ideas of them, but as in his critique of Maupertuis, he is assured that they exist outside the perceiving mind (p. 187).

Or, quelle absurdité d'imaginer que des suppositions toutes chimériques puissent mener à des conclusions toutes vérifiées par l'expérience [...] J'ajoute: si les corps n'existent point, la physique est anéantie; et combien de choses démontrées en physique?

^{5.} Richard Popkin maintains that Turgot's discussion of Berkeley is "polite, considered, measured and responsible" compared to some of his nastier critics in England and France (1997: 180). The comparison to other critics notwithstanding, among Turgot's own works there is a contrast between his attitude towards Berkeley in 1750 and the modified view of his Encyclopédie articles.

Finally, the conclusion of Turgot's letters on Berkeley could hardly be more resolute than the statement "En voilà assez pour voir le ridicule du système" (p. 193).

In both his critiques of Maupertuis and Berkeley, Turgot relied heavily and almost solely on a somewhat circular argument, assuming the existence of what was yet to be proven (or at least deemed so by Berkeley and Maupertuis). Like other contemporary critics of Berkeley, Turgot took the Irish philosopher's works to stand for a reduction of empiricism *ad absurdum*, misrepresenting Berkeley's assertion that sensible objects are the real and only existing things, even if their essence is dependent upon a perceiving spirit or God; it is the traditional distinction between external bodies as obscure causes of perceptions and their 'ideas' or 'representations' in the mind that Berkeley tried to do away with.⁶

It is interesting to note that unlike his critique of Maupertuis, Turgot's review of Berkeley's system concerns only its epistemological and metaphysical features, with no regard to their linguistic implications. This lack of reference to Berkeley's remarks on language is all the more striking since Berkeley combined his critique of language with his immaterialist system in the introduction to the *Principles of Human Knowledge* (1710), launching a vehement attack on the notion of abstract ideas and their alleged representation by general terms. This close relationship between abstraction in language and metaphysics was to occupy Turgot later, when he was required to define an abstract term such as 'existence'.

3. Turgot's Encyclopédie entries (1756)

The articles Turgot contributed to Diderot's and d'Alembert's *Encyclopédie*, published in volumes six (1756) and seven (1757), testify to the wide scope of his interests (ranging from *Expansibilité* to *Foire*). Two of them, *Existence* and *Étymologie* (1756), present a clear departure from Turgot's earlier views concerning perception and representation.

^{6.} See Michael Ayers's introduction to Berkeley (2000: xxiv-xxxi) and Bracken (1965: 6-38).

^{7.} On Berkeley's theory of language and his (perhaps misguided) critique of Locke, see Coseriu (2003: 227–236).

3.1 The psychological history of 'existence'

In the article Existence, Turgot treads a Lockean path by trying to explain the notion through a search for its origin. The starting point here is not reality and external objects, but the perceiving self — rather similarly to Maupertuis's own reconstruction of the genesis of his ideas. Turgot traces the different kinds of human sensations (those related to present things, to objects which are not directly present, and to the self). All three sorts of sensations are rooted in selfconsciousness; Turgot explains that we convey the consciousness of the self onto external objects, thus making their existence stem from, or depend on human self-perception. Unlike his earlier claims, Turgot realizes in 1756 that the same degree of existence may be attributed to the objects of sensations and to abstract notions of the imagination:

[...] Nous transportons en quelque sorte cette conscience du moi sur les objets extérieurs, par une espèce d'assimilation vague, démentie aussitôt par la séparation de tout ce qui concerne le moi, mais qui ne suffit pas moins pour devenir le fondement d'une abstraction ou d'un signe commun, et pour être l'objet de nos jugements.

Le concept de l'existence est donc le même dans un sens, soit que l'esprit ne l'attache qu'aux objets de la sensation, soit qu'il l'étende sur les objets que l'imagination lui présente avec des relations de distance ou d'activité, puisqu'il est toujours primitivement renfermé dans la conscience même du moi généralisé plus ou moins. (1913 [1756]: 525)

It is worth recalling here Turgot's early critique, where he reprimanded Maupertuis for claiming that we can bestow reality on objects by repeatedly perceiving them. In 1750 Turgot rhetorically wondered what Maupertuis intended by his expression 'to bestow more reality' on something (donner plus de réalité), and dismissed it as an obscure term grounded in sophistry.8 Yet in his Encyclopédie article Turgot employs the same means to explain how we form the concept of existence. According to Turgot, if we further try to explain the word 'existence' (or the actual existence of external objects) as separate from us, we inevitably face a deadlock. In a peculiar confession within such an explanatory entry, Turgot admits the impossibility of any definition of existence as separated from self-consciousness (p. 531):

Alors la notion d'existence sera aussi abstraite qu'elle peut l'être, et n'aura d'autre signe que le mot même existence; ce mot ne répondra, comme on le voit, à

^{8. &}quot;Qu'entend Maupertuis par ces mots 'donner plus de réalité'. A l'aide de cette équivoque il fait bien des sophismes" (1971 [1750]: 77).

aucune idée ni des sens, ni de l'imagination, si ce n'est à la conscience du *moi*, généralisée, et séparée de tout ce qui caractérise non seulement le *moi*, mais même tous les objets auxquels elle a pu être transportée par abstraction. Je sais bien que cette généralisation renferme une vraie contradiction, mais toutes les abstractions sont dans le même cas, et c'est pour cela que leur généralité n'est jamais que dans les signes et non dans les choses. La notion d'*existence* n'étant composée d'aucune autre idée particulière que de la conscience même du *moi*, qui est nécessairement une idée simple, étant d'ailleurs applicable à tous les êtres sans exception, ce mot ne peut être, à proprement parler, défini et il suffit de montrer par quels degrés la notion qu'il désigne a pu se former.

Since the existence of external objects is fundamentally grounded in human self-consciousness, Turgot does not hesitate to consider the implications he ridiculed in his critique of Maupertuis. The order of sensations and that of things might constitute 'two separate universes'; daily experience may grant us no guarantee against false judgements concerning the existence of objects. His bold conclusion thoroughly differs from his views of 1750 (p. 536).

Je ne m'arrêterai pas à réfuter les conséquences qu'on voudrait tirer de l'inclination que nous avons à croire à l'existence des corps malgré tous les raisonnements métaphysiques: nous avons la même inclination à répandre nos sensations sur la surface des objets extérieurs, et tout le monde sait que l'habitude suffit pour nous rendre les jugements les plus faux presque naturels. Concluons qu'aucune sensation ne peut immédiatement, et par elle-même, nous assurer de l'existence d'aucun corps.

There is, however, one last refuge from immaterialism, a way out of 'the prison to which nature confines us, isolated and cut off' (ibid.). As Berkeley had pointed out, the way out of the impasse cannot be found within the sensualist system itself. Trying to solve this problem, Turgot chooses to follow another direction than Berkeley's⁹ and turns to the assistance of probable causality. He explains that we are faced with two different orders, the one comprised of sensations and the other of their unknown causes. The only way to mediate between these orders is by employing the Newtonian scientific method, treating sensations as facts in need of demonstration by hypotheses about their causes. We prove the existence of an object by supposing it to be a cause of our sensations, but this supposition must be carefully verified. Gone is Turgot's assurance that things

^{9. &}quot;It necessarily follows, there is an *omnipresent eternal Mind*, which knows and comprehends all things, and exhibits them to our view in such a manner, and according to such rules as he himself hath ordained, and are by us termed the *Laws of Nature*" (Berkeley 2000 [1710]: 220).

just exist 'out there', while ideas adequately represent them. It is replaced by a scientific hypothesis concerning their probable existence, which must be scrupulously demonstrated. By adopting this method, Turgot associates the existence of external reality with all other domains in which suppositions, having to be matched and verified by given facts, function as explanatory principles — from physics to history.

Turgot distinguishes between two types of demonstrations. There are cases in which the certainty of the cause is equal to that of the given fact (this applies, in his view, to God's existence). In most instances, however, we have to search for the unknown causes of given effects, as is the case in proving the existence of external objects (537-538).

L'autre manière de remonter des effets connus à la cause inconnue consiste à deviner la nature, précisément comme une énigme, à imaginer successivement une ou plusieurs hypothèses, à les suivre dans leurs conséquences, à les comparer aux circonstances du phénomène, à les essayer sur les faits, comme on vérifie un cachet en l'appliquant sur son empreinte; ce sont là les fondements de l'art de déchiffrer, ce sont ceux de la critique des faits, ceux de la physique; et puisque ni les êtres extérieurs, ni les faits passés, n'ont avec la sensation actuelle aucune liaison dont la nécessité nous soit démontrée, ce sont aussi les seuls fondements possibles de toute certitude au sujet de l'existence des êtres extérieurs et de notre existence passée.

The Encyclopédie entry ends by basing the existence of external objects and the permanence of the self on an inductive method, which is not infallible or certain but merely endowed with a high degree of probability. The same method is employed by Turgot to bestow a similar degree of certitude on etymological suppositions. Within his system, both tasks become experimental.

3.2 Etymology as experimental metaphysics

Turgot was not originally commissioned to compose the entry Étymologie for the Encyclopédie. The task had been assigned to André Morellet (1727-1819), who edited a draft by Charles de Brosses (1707–1777) on the same topic. When asked to review the edited article, Turgot found it unsatisfactory and wrote his own entry, which triggered a debate over its authenticity. 10

10. Gustave Schelle (in Oeuvres de Turgot) and Maurice Piron (in Turgot — Étymologie) maintain that Turgot composed the article as a rather critical response to De Brosses's. De Brosses himself wrote that Turgot had surely read his treatise and that they shared several views, but more generally, "Lorsque l'article de Turgot parut dans l'Encyclopédie, The methodological affinity between *Étymologie* and the way out of 'the prison of immediate perceptions' in *Existence* is manifest in Turgot's instructions for the conduct of proper etymologies. The origin (*primitif* or *étymologie*) of a current word (*dérivé*) is an unknown cause which may be arrived at only by conjectures. Etymological investigations should be executed by the aid of two processes that complement each other: the invention of conjectures and their criticism or verification. Correspondingly, the article contains two main parts: *Sources des conjectures étymologiques* and *Principes de critique pour apprécier la certitude des étymologies*. Turgot's scientific method and the meticulous attention he paid to both the sources and the evaluation of historical-linguistic inquiries constitute the beginning of a modern concept of etymology. This is particularly apparent once Turgot's method is compared with far-fetched seventeenth-century inquiries into the history of words (some of which were underlain by the hope of recovering a prelapsarian natural correspondence between words and things).¹¹

Turgot points out that invention as a source of etymology has no strict rules and consists of intelligent guesses, also involving creativity and the exercise of the imagination. He requires etymologists to immerse themselves in a 'nonchalant reverie', a state of confusion where the mind contemplates a multitude of pictures produced by a rapid fluctuation of ideas and their connections to each other (1913 [1756]: 478). But whereas the formation of etymological conjectures has to be creative, the art of criticism consists in the destruction of much of the imagination's labor: assessing, balancing, reducing probabilities, and negating. The following distinction between three classes of etymologies

je m'attendais à lire mon propre ouvrage; je trouvai une dissertation toute différente [...] L'article *Étymologie* est à lui, mon traité est à moi" (quoted in Turgot 1913: 517). Luigi Rosiello (1987) traced substantial differences between De Brosses's and Turgot's methods of etymological research .

^{11.} An interesting exception in this regard is Leibniz. Asserting against Locke that signification is not entirely arbitrary and that there is 'a certain natural source' of languages, Leibniz nonetheless rejected contemporary wild etymologies conducted as part of a search for an original perfect language. His main principles of etymological research were somewhat similar to Turgot's. According to Leibniz, etymologies must be conducted continuously, with no leaps between distant languages (geographically or historically), and on the basis of a wide range of materials. Even so, they remain mere conjectures rather than immutable demonstrations (see Aarsleff 1982 [1969]). For a fragment by Leibniz on the connection between words and things, see Dascal (1987: 189–190).

— certain, probable, and false — is supported by Turgot's recommendation to exercise doubt frequently, as much as possible. 12

Another resemblance between Turgot's Existence and Étymologie is the avowed problematic task of definition. Turgot identifies two main types of mistakes in this domain. The first consists in defining a term according to only one of its accepted meanings; the second emerges in trying to avoid the first by searching for the common trait of all the possible significations of a word. Such an endeavor often yields a definition that does not include any distinct characteristic of its object. Turgot postulates the impossibility of establishing 'the most general sense' of a word, supposedly including all its accepted meanings. This would be a futile enterprise due to the contingent character of signification (p. 510):

J'ose dire que presque toutes les définitions où l'on annonce qu'on va définir les choses dans le sens le plus général, ont ce défaut, et ne définissent véritablement rien, parce que leurs auteurs, en voulant renfermer toutes les acceptions d'un mot, ont entrepris une chose impossible: je veux dire, de rassembler sous une seule idée générale des idées très différentes entre elles, et qu'un même mot n'a jamais pu désigner que successivement, en cessant en quelque sorte d'être le même mot.

Once again, the quest for an adequate definition of abstract terms defeats itself or contains a real contradiction. Consequently, Turgot offers a notion of definition by usage: the sense of a word is regarded as an aggregate of all its accepted meanings, varying according to changes in its daily applications.

Throughout the article, Turgot presents several unique views on etymology, which he treats as a comparative scientific study of languages, both synchronically and diachronically. The conduct of experimentally verifiable etymologies would hopefully contribute to the foundation of 'a general theory of speech' and 'a philosophical history of the human spirit'. Both are to be carried out by genetically tracing ideas and their significations, mutual relations, changes in time, and correspondence to social, economic, and artistic factors (p. 506).

^{12.} In rule 20 of the critical method Turgot calms a possible fear of scepticism in a Cartesian manner: "On n'a point à craindre que ce doute produise une incertitude universelle; il y a, même dans le genre étymologique, des choses évidentes à leur manière; des dérivations si naturelles, qui portent un air de vérité si frappant, que peu de gens s'y refusent" (1913 [1756]: 503). Nevertheless, Turgot does not supply any criterion for the distinction between 'regular' etymologies and 'naturally true' ones; the appeal is to feeling and emotion.

N'y peut-il pas voir souvent la gradation qu'on a suivie dans le passage d'une idée à une autre et dans l'intervention de quelques arts et, par là, cette étude ne devient-elle pas une branche intéressante de la métaphysique expérimentale? Si ces détails sur les langues et les mots dont l'art étymologique s'occupe sont des grains de sable, il est précieux de les ramasser, puisque ce sont des grains de sable que l'esprit humain a jetés dans sa route, et qui peuvent seuls nous indiquer la trace de ses pas.

Turgot acknowledges his debt to Locke and Condillac, who pursued the mutual history of language and thought. Contemplating potential reasons for linguistic change and variety, he describes a similar process to Maupertuis's arbitrary "destination des signes aux différentes parties des perceptions" (p. 507):

Une des [difficultés] principales est l'espèce d'impossibilité où les hommes se trouvent de fixer exactement le sens des signes auxquels ils n'ont appris à lier des idées que par une habitude formée dans l'enfance, à force d'entendre répéter les mêmes sons dans des circonstances semblables, mais qui ne le sont jamais entièrement; en sorte que, ni deux hommes, ni peut-être le même homme, dans des temps différents, n'attachent précisément au même mot la même idée. Les métaphores, multipliées par le besoin et par une espèce de luxe d'imagination, qui s'est aussi dans ce genre créé de faux besoins, ont compliqué de plus en plus les détours de ce labyrinthe immense, où l'homme, introduit, si j'ose ainsi parler, avant que ses yeux fussent ouverts, méconnaît sa route à chaque pas.

It is these circumstances that determine in each of us the meanings of words, and they differ among various men and women as well as between generations. Thus it seems that in the article *Étymologie* meaning is somewhat subject to the manner of perception, even if not as thoroughly as Maupertuis had suggested.

Turgot forms a dynamic concept of human language, emphasizing the changes each language undergoes within itself apart from being influenced by constant exchange with other tongues. In a critique of linguistic purism, Turgot claims that all languages acquire new words daily (as apparent in his assertion that different people, sometimes even the same person, do not attach similar meanings to the same word under different circumstances). Following this notion of linguistic change, etymological conjectures may not be refuted on grounds of a missing correspondence to immutable first principles. Turgot does not wish to deduce abstract rules from a universal General Grammar but to examine languages experimentally for the discovery of these very rules. An

^{13.} Maupertuis (1971 [1740/1748]: 40).

example of this approach is available in rule 17 for the verification of etymological suppositions (p. 501):

[...] Ne cherchons donc point à ramener à une loi fixe des variations multipliées à l'infini, dont les causes nous échappent: étudions-en seulement la succession comme on étudie les faits historiques.

Wishing to apply his experimental method only within a limited scope, Turgot rejects the possibility of an etymological supposition serving as a universal rule. Though etymologies might indicate continuous phenomena such as migrations and commerce among nations, they are not capable of establishing isolated facts (p. 513):

En général, des conjectures sur des noms me paraissent un fondement bien faible pour asseoir quelque assertion possitive; et, si je voulais faire usage de l'étymologie pour éclaircir les anciennes fables et le commencement de l'histoire des nations, ce serait bien moins pour élever que pour détruire.

Turgot's linguistic historicism, accompanied by his experimental method, led him to assert an additional notion — the socio-pragmatic aspect of linguistic change. Following his anti-purist convictions, Turgot asks his readers to refrain from the usual study of ancient languages in their perfect form, through texts written by distinguished authors. His experimental method should be applied to languages in their most corrupted states, as used by merchants and peddlers throughout the provinces. Only there may be found people who neglect grammatical rules for commercial utility and do not refuse to employ words merely due to their foreign origin.14

This pragmatic awareness allows Turgot to emphasize the interplay between the producer and the receiver of linguistic signs. Being constantly occupied with linguistic change, he writes that variations in pronunciation cannot be always attributed to the producer's phonetic convenience (p. 501):

Lorsqu'un mot, pour être transmis de génération en génération, passe d'un homme à l'autre, il faut qu'il soit entendu avant d'être répété; et, s'il est mal entendu, il sera mal répété: voilà deux organes et deux sources d'altération.

The new methodological outlook of etymology makes it a useful tool not only for historical and linguistic research but also for literary criticism of philosophical

^{14. &}quot;C'est le peuple grossier qui a le plus contribué à la formation de nouveaux langages [...]. C'est toujours par le bas peuple que commence le langage mitoyen qui s'établit nécessairement entre deux nations" (Turgot 1913 [1756]: 480-481).

essays, folk tales, Biblical stories, and myths of creation and foundation. Armed with critical zeal and mindful of false etiologies, Turgot makes several interesting observations, for example on the occasional invention of a hero's proper name after the already-existing name of the city he had allegedly founded. Such inventions occur, according to Turgot, 'in order to fill up the gaps that history always leaves open regarding the genesis of peoples'; his new etymological science might clarify these cases (p. 515).

Turgot's *Étymologie* thus exhibits an innovative approach to the study of language in both its pragmatic/historical sensitivity and the employment of probable causality. It offers historians of language a synthetic point of view, recognizing constant tensions in two axes: the dialectics of language universals and linguistic variety, and that of the origin of language versus its development.

4. Contemporary context: Reassessing Berkeley's challenge

The change Turgot's views underwent in the beginning of the 1750s may have been influenced by parallel theoretical developments in the writings of significant *philosophes* such as Condillac and Diderot. Both of them, as well as Turgot, exemplified a positive reevaluation of some of the tenets of Berkeley's immaterialism (though by no means most or all of them). Having been frequently dismissed as unattainable by an appeal to common sense until the 1740s, Berkeley's system was reassessed as an invigorating challenge to sensualist philosophy in the tradition of Locke. Though some of the *philosophes* still succumbed to the old manner of ridiculing Berkeley (like Voltaire in the article *Corps* in his *Dictionnaire philosophique*), others appreciated the relevance of Berkeley's works to their own philosophy (Diderot and Condillac).

Berkeley had shown in his *Essay Towards a New Theory of Vision* (1709; first translation into French in 1734) that the visual images of certain objects are completely distinct from tactile perceptions of the same items (2000 [1709]: 54). Thus, one sense cannot reaffirm what another perceives, contrary to Turgot's initial trust in the compatibility of data received through different senses

^{15.} On the general attitude towards Berkeley's works until the 1730s, see Bracken (1965). Richard Popkin claims that Berkeley played a more significant role than Hume in the *philosophes*' theories of knowledge, even if as a negative example to be avoided. On the multifaceted image of Berkeley in the French Enlightenment, see Popkin (1997).

^{16.} Voltaire called Berkeley's system ridiculous, blamed Berkeley for "cent sophismes captieux" and finally declared: "Le paradoxe de Berklay [*sic*] ne vaut pas la peine d'être réfuté" (1994 [1752]: 644–645).

and their origin in a single external object. The ensuing conclusion, that perception varies according to the number and soundness of the senses, was reiterated in Berkeley's *Three Dialogues between Hylas and Philonous*. ¹⁷ The discrepancies between the senses and the possibility of qualitatively different inputs, mediated only by habit and experience, raised crucial questions: if there were no ideas common to sight and touch, the final perceptions produced from the data these senses provide might be contingent. The growing interest in the implications of Berkeley's theory of knowledge may explain Maupertuis's and Turgot's move from definitions and linguistic analysis of perception to questioning the adequacy of human cognition and its congruence with external reality.

Diderot incorporated Berkeley's observations into his *Lettre sur les aveugles* à l'usage de ceux qui voient (1749), pointing out that the human cognitive map is modeled after contingent manners of perception, which may vary among impaired people. He took Berkeley's observations on vision to their farthest logical consequence (which cost him an incarceration in Vincennes): a denial of the distinct existence of distance, size, and space independently of the perceiving eye implied the relativity of man's entire perception of the universe, including time, morals, religion, and history. The lack of a substructure common to all senses was aggravated by the problem of empiricist representation (one of the main targets of the Berkeleyan assault). 18

In his early critiques of Berkeley and Maupertuis (1750), Turgot held the opposite view to that of Diderot and Berkeley, affirming the common substructure of all senses and the compatibility of their data concerning external reality.

^{17. &}quot;Hence it follows that when I examine by my other senses a thing I have seen, it is not in order to understand better the same object which I had perceived by sight, the object of one sense not being perceived by the other senses" (Berkeley 2000 [1713]: 235).

^{18.} The much-debated existence of a substructure common to all senses is inextricably linked to the Molyneux problem. William Molyneux (1656-1698), an Irish scientist and lawyer, asked Locke in two letters (1688, 1693) whether a man born blind, able to distinguish a ball from a cube by touch, would discern the one from the other without touching them once his eyesight is restored to him. Locke adopted Molyneux's negative answer, claiming that only experience would teach the blind to coordinate his tactile and visual sensations. This opinion was shared by Berkeley, Voltaire, and Maupertuis and opposed by Condillac and Turgot (at least in their works written before 1751). Turgot confirmed the view that all sense data are ultimately compatible by declaring Locke's solution of the Molyneux problem to be 'false, even very false' (1971 [1750]: 81).

Comment prouvera-t-il [Berkeley] que cet être existant hors de nous, cette cause de nos sensations, ce centre commun où elles aboutissent et que tous les hommes appellent matière n'existe pas? Je n'entreprendrai point de le réfuter; je vous indiquerai seulement mes principes. Je porte la main sur un objet, je sens une résistance et j'en ai idée par le tact; en même temps, je vois ma main s'avancer vers cet objet que mes yeux me montraient déjà; c'est par le secours de mes yeux que je guide ma main; je la vois s'appliquer à l'objet, qui par là est une cause commune de mes deux sensations qui n'auront nul rapport si ma main n'existe que dans mon idée. (1913 [1750]: 186)

This view is diametrically opposed to the one Turgot adhered to in 1756, when he demonstrated that neither vision nor touch are sufficiently reliable in proving the existence of external objects (1913 [1756]: 534–535).

Mais comment la sensation pourrait-elle être immédiatement et par ellemême un témoignage de la présence des corps, puisqu'elle n'est pas le corps, et surtout puisque l'expérience nous montre tous les jours des occasions où cette sensation existe sans le corps?¹⁹

Diderot used such observations in 1749 against Condillac's confidence in the existence of external objects, declaring Condillac to be a Berkeleyan immaterialist *malgré lui* or otherwise guilty of inconsistency. Thus Diderot recommended that Condillac read Berkeley's *Three Dialogues*:

On appelle idéalistes ces philosophes qui, n'ayant conscience que de leur existence et des sensations qui se succèdent au-dedans d'eux-mêmes, n'admettent pas autre chose: système extravagante, qui ne pouvait, ce me semble, devoir sa naissance qu'à des aveugles; système qui, à la honte de l'esprit humain et de la philosophie, est le plus difficile à combattre, quoique le plus absurde de tous. Il est exposé avec autant de franchise que de clarté dans trois *Dialogues* du docteur Berkeley, évêque de Cloyne; il faudrait inviter l'auteur de l'*Essai sur nos connaissances* [Condillac] à examiner cet ouvrage: il y trouverait matière à des observations utiles, agréables, fines, et telles en un mot qu'il les sait faire. L'idéalisme mérite bien de lui être dénoncé; et cette hypothèse a de quoi le piquer moins encore par sa singularité, que par la difficulté de la réfuter dans ses principes; car ce sont précisément les mêmes que ceux de Berkeley (Diderot 2000 [1749]: 56).²⁰

^{19.} This question is followed by a detailed examination of the failure of both vision and touch to assure us of the existence of external bodies.

^{20.} Taking Diderot's remark and Berkeley's 'agreeable and fine observations' into account, Condillac modified some of his earlier opinions in the *Traité des sensations* of 1754. In his *Essai* of 1746 Condillac was convinced that vision and touch do correspond to each other,

According to Diderot's and Condillac's adjusted view, external reality is not perceived directly through unmediated sensations. Sense data are compared and juxtaposed, thereby 'instructing' the mind how to form a unified picture of the world. Diderot and Concillac were not the only ones to take Berkeley's system more seriously than their predecessors; in his Encyclopédie entry Existence Turgot advocated a reevaluation of Berkeley, praising rather than condemning him for having authored 'ridiculous', 'obscure', and 'bizarre' works (Turgot 1913 [1756]: 534):

C'est le célèbre évêque de Cloyne, le docteur Berkeley, connu par un grand nombre d'ouvrages, tous remplis d'esprit et d'idées singulières, qui, par ses dialogues d'Hylas et de Philonoüs [sic], a, dans ces derniers temps, réveillé l'attention des métaphysiciens sur ce système oublié [immaterialism]. La plupart ont trouvé plus court de le mépriser que de lui répondre, et cela était en effet plus aisé.

Turgot did not explicitly mention, however, that he himself was among those who found it easy enough to deride 'the famous Bishop' only a few years earlier (though unlike other critics, he did bother to respond to Berkeley's works at relative length).

Conclusion

The modification of Turgot's epistemological views, including a serious examination of Berkeleyan immaterialism, occurred at the same time Condillac and Diderot began to reassess Berkeley's system. Moreover, the only work by Berkeley Turgot explicitly referred to in 1756, Three Dialogues between Hylas and Philonous, was first translated into French in 1750 by one of Diderot's acquaintances, the Abbé Gua de Malves.²¹ It would be beyond the confines of this paper to trace a direct influence of this translation upon the reevaluation of Berkeley's system by the philosophes, partly since Diderot (unlike Condillac) read English fluently and referred to the Dialogues already in his Lettre sur les aveugles of 1749. However, I would like to suggest that the change Turgot's

sharing fundamental ideas that 'cannot be represented in different ways'. The assertion that all senses perceive the same basic ideas of extension was abandoned in the Traité in favor of an instructive-experimental method, closer to Diderot's insights of 1749, in which one learns how to perceive.

^{21.} Dialogues entre Hylas et Philonous, published in Amsterdam in 1750 (see Jessop 1968: 27). Jean Paul de Gua de Malves (1712-1786) served as editor of the Encyclopédie before the project was entrusted to Diderot and d'Alembert.

views underwent in the 1750s epitomizes a gradual revision in France of common prejudices concerning the alleged superficiality of Berkeley's works. The recognition of Berkeley's challenge to sensualist epistemology was accompanied by an emphasis on the unique role of language as the medium through which human knowledge developed and a mediator between incommensurable channels of perception. Turgot's articles in the *Encyclopédie* acknowledge the significance of linguistic terms and definitions, while arguing that in both epistemology and the study of language probable but well-examined hypotheses should be preferred to dogmatic convictions.

However suggestive these facts are, one has to be cautious. It may be that Turgot was undergoing a spontaneous course of intellectual development at the beginning of the 1750s; he was barely twenty-three upon writing his critiques of Maupertuis and Berkeley. Its underlying reasons notwithstanding, the apparent change in Turgot's epistemology was long lasting. The dilemma of sensualist epistemology — how we know the sources of perceptions, if all we have access to are mere sense data — continued to haunt Turgot for many years thereafter. As Condorcet recounted in 1784, 'Turgot frequently used to say that anyone who did not regard the existence of external objects as a difficult question, one that merits occupying our curiosity, would never make any progress in metaphysics.'²²

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^{22. &}quot;M. Turgot disait souvent qu'un homme qui n'avait jamais regardé la question de l'existence des objets extérieurs comme un objet difficile et digne d'occuper notre curiosité ne ferait jamais de progrès en métaphysique" (Condorcet, *Vie de M. Turgot* [1784], p. 289; quoted in Turgot 1913: 62).

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SUMMARY

A belief in a firm correspondence between objects, ideas, and their representation in language pervaded the works of Anne Robert Jacques Turgot (1727–1781) in 1750. This conviction is particularly manifest in Turgot's sharp critique of Berkeley's philosophical system and his remarks on Maupertuis's reconstruction of the origin of language. During the 1750s Turgot's epistemological views underwent a change, apparent in two of his contributions to

the *Encyclopédie*: the entries *Existence* and *Étymologie* (1756). These articles included a reassessment of Berkeleyan immaterialism, facing an ultimate crisis of definition and representation. A similar development may be traced in contemporary works by Condillac and Diderot. Turgot's *Encyclopédie* entries also envisaged a new science, an archeology of the human mind aided by the examination of linguistic development and change. This entailed the scientific verification of conjectures in any historical account of ideas, turning etymological and psychological inquiries into what Turgot termed 'experimental metaphysics'.

RÉSUMÉ

La croyance en une correspondance nette entre les objets, les idées, et leur représentation dans le domaine du langage imprégna les oeuvres d'Anne Robert Jacques Turgot (1727-1781) en 1750. Cette conviction se retrouve clairement dans la critique que fit Turgot sur le système philosophique de Berkeley, ainsi que dans ses remarques sur la tentative faite par Maupertuis de reconstruire l'origine des langues. Au cours des années 1750 les opinions épistémologiques de Turgot subirent une modification, évidente dans deux de ses contributions à l'Encyclopédie: les articles Existence et Étymologie (1756). Dans ces articles s'intégrait une évaluation nouvelle de l'immatérialisme de Berkeley, face à une crise finale portant sur la définition et la représentation. Un développement analogue se laisse percevoir dans des oeuvres contemporaines par Condillac et Diderot. Les articles de Turgot dans l'Encyclopédie envisageaient également une nouvelle science, une archéologie de l'esprit humain, qu'aiderait l'examen du développement et du changement linguistiques. Il devait en résulter la vérification scientifique de conjectures dans tout exposé d'ordre historique, transformant les enquêtes étymologiques et psychologiques en ce que Turgot qualifia de «métaphysique expérimentale».

ZUSAMMENFASSUNG

Der Glaube an einen engen Zusammenhang zwischen Objekten, Ideen und ihrer sprachlichen Darstellung durchzog die Werke von Anne Robert Jacques Turgot (1727–1781) im Jahre 1750. Diese Überzeugung tritt besonders deutlich hervor in Turgots scharfer Kritik an Berkeleys philosophischem System

sowie in seinen Bemerkungen zu Maupertuis' Rekonstruktionsversuch des Sprachursprungs. In den fünfziger Jahren des 18. Jahrhunderts wandelte sich Turgots Sicht der Dinge, was an zwei seiner Beiträge zur Encyclopédie deutlich wird: an den Einträgen Existence und Étymologie (1756). Diese Artikel unternahmen den Versuch einer Neubewertung von Berkeleys Immaterialismus und traten einer letzten Krise der Definitions- und Repräsentationsversuche entgegen. Eine ähnliche Entwicklung ließe sich in zeitgenössischen Werken von Condillac und Diderot aufzeigen. Turgots Encyclopédie-Einträge zielten auch auf die Schaffung einer neuen Wissenschaft ab, auf eine Archäologie des menschlichen Geistes, welche durch die Untersuchung von Sprachentwicklung und Sprachwandel befördert wurde. Dies zog die wissenschaftliche Überprüfung von Konjekturen in allen historischen Darstellungen von Ideen nach sich und bewirkte so den Übergang von etymologischen und psychologischen Untersuchungen zu dem, was Turgot "experimentelle Metaphysik" nannte.

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