

**•BAS VAN FRAASSEN ON RELIGION AND KNOWLEDGE: IS  
THERE A THIRD WAY BEYOND FOUNDATIONALIST  
ILLUSION AND BRIDLED IRRATIONALITY?<sup>1</sup>**

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**●Abstract**

In his most recent book *The Empirical Stance* (2002), Bas van Fraassen elaborates earlier suggestions of a religious view that shares striking parallels with his constructive empiricism. A particularly salient feature consists in the critical distance maintained towards theoretical formulations both in science and religion. Van Fraassen therefore gives preference to a mystical approach of religious experience. Alternatively I suggest a view built on mediation by the word, both in the structure of reality and the encounter between persons. Without falling prey to rationalist illusions, such an approach allows for true human knowledge as embedded in transcendent Wisdom. It implies a more radical break with the Enlightenment ideal of neutral and universal knowledge than van Fraassen's program, as he still maintains a kind of immanent grounding of knowledge in the form of direct, unmediated experience, in spite of his claimed rejection of classical foundationalism. We can thus overcome the antithetical ring that characterizes his notion of rationality understood as bridled irrationality and escape relativism without forgetting the lessons that we have learned from the collapse of positivism and to which van Fraassen rightly draws our attention.

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## ● Introduction

Until the publication of *The Empirical Stance*<sup>2</sup>, van Fraassen's religious approach had to be reconstructed from passing comments scattered in several articles, not all of them easily accessible. His recent book allows us to draw a coherent picture of his views on religion, which is in line with his earlier comments. Far from only expressing his private opinion, without any relevance for academic discussion, van Fraassen's statements on religion constitute a worthwhile area of study for everybody interested in constructive empiricism. In fact, there are striking parallels between his theological stance, his epistemology and his philosophy of science. Reflection on his religious approach may provide us with the clue which will show us how to go beyond van Fraassen's understanding of rationality as bridled irrationality, without falling prey to the illusions of foundationalism, or what some name the "Enlightenment project"<sup>3</sup>.

### ● 1. An empiricist's religion

In line with van Fraassen's empiricism, the religious approach we find in his writings starts out and finds its roots in experience. For example, he considers that the question of God's existence is equivalent to asking if "it ever really happen[s] that anyone anywhere encounters God<sup>4</sup>." The typical empiricist rebellion against metaphysics guides much of what van Fraassen says about religious commitment. Thus he draws a sharp distinction between the philosophical construction of an omniscient, omnipotent, omnibenevolent Being (whom he calls scornfully the "O-O-O God") and the God who is the subject of religious adoration:

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<sup>2</sup> VAN FRAASSEN (2002).

<sup>3</sup> Cf. for example WESTPHAL (1999), p.416.

<sup>4</sup> VAN FRAASSEN (2002), p.255, n.32.

“the God of Abraham, Isaac and Jacob, not the God of the philosophers<sup>5</sup>”... Thus experience, not doctrine, is at the center of true religion.

We find here an exact parallel to what constructive empiricism has to say about science. If it was necessary to prove that van Fraassen’s stance on religion is not a private opinion, without any link to his philosophical commitments, it could be shown that he draws himself a comparison between what amounts to antirealism in both science and religion:

Suppose that, in a philosophical way, I do not understand [...] science or religion. It might be one thing to take me by the hand and lead me into relevant experience. That might allow me to acquire a deeper sense of insight into those aspects of human existence. It would be quite another thing — and to the empiricists of little or no value — to postulate that there are certain entities or realms of being about which [...] science, or religion [...] tells us a true story. Yet, that is what philosophers have often tended to do: [they contend that ...] scientific theories [are] the putative true summary of the Laws of Nature, and religious doctrines the putative true description of a divine, extra-mundane reality<sup>6</sup>.

The fight against the laws of nature thus joins hands with the rejection of metaphysical simulacra of God — both are but facets of the same empirical rebellion against all attempts to put shadows of theoretical descriptions in the place of real human experience in all its richness.

Bas van Fraassen’s writings suggest that the parallel between anti-realism in science and in religion can be taken one step further. Not only do the scientist and the believer exhibit the same detachment with regard to theoretical formulations of their experience (at

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<sup>5</sup> *Ibid.* p.1, 29.

<sup>6</sup> VAN FRAASSEN (1994a), p.312. Cf. VAN FRAASSEN (2002), p.177f, where van Fraassen draws a parallel between, on the one hand, realism and secularism, both satisfied with the results of objectifying inquiry, and, on the other, anti-realism and a “continuing sense of wonder”, leaving room for the encounter with the wholly Other.

least if they are faithful empiricists), but anti-realism in science and religion feed on each other. On the one hand, constructive empiricism goes with a characteristic uncertainty about how our world *is*; such perplexity leaves in turn room for other than scientific approaches to reality. To exclude the religious dimension, van Fraassen writes “is all very well only for someone who feels quite certain of knowing pretty well what there is in the universe and what that universe is like. I have no such certainty<sup>7</sup>.”

On the other hand, faith teaches us not to set our heart on “earthly treasures”. Whatever we need to construct in order to guide our lives as rational agents — scientific theories, a coherent view of ourselves and the world —, the encounter of the wholly Other allows us to treat them “as temporary, tradable assets of our present stage of life, as tools and resources for our pilgrimage through this world.” The religious knows how to find comfort when faced with the disconcerting perspective that anti-realism has to offer: “it is only the secular [...] who have reason to fear that life without a world-view will be a life without meaning or value<sup>8</sup>.”

In addition to the rejection of metaphysics, van Fraassen’s account of religion and constructive empiricism also share positive elements. Sometimes his empiricism gets misrepresented by one-sided insistence on its “anti”-element. It certainly is a branch of anti-realism, refusing to commit itself to the truthfulness of scientific theories (in so far as they concern the unobservable realm). However, it should not be equated to wholesale skepticism, not even with “a life of utilitarian calculation and prudence — what Bradley called a shopkeeper’s life of always a little bit more, a little bit less<sup>9</sup>.” The scientist has to immerse himself in the world picture which the theories offer him; only if he accepts to inhabit the construction of reality that contemporary science proposes, will he be able to participate meaningfully in scientific practice. Anti-realism does not allow the scientist to go beyond the

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<sup>7</sup> VAN FRAASSEN (2002), p.251, n.1.

<sup>8</sup> VAN FRAASSEN (1999b), p.181.

<sup>9</sup> Bas VAN FRAASSEN (1988), p.152.

“as-if” of theoretical truth claims; yet, his agnosticism is of an engaged sort. He is, in a certain sense, a practicing unbeliever<sup>10</sup>.

The same analysis applies to van Fraassen’s account of religion. It certainly has a distinctive antirealist flavor in that it refuses to bind itself to doctrine. But it would be false to conclude from this negative aspect that all that matters is (personal or institutionalized) experience. In fact, “significance is already lost if we think of the *experience* of God’s presence as what is immediate to us, rather than God.” Religious experience loses its meaning when it is no longer seen as the subsidiary level that points beyond itself<sup>11</sup>. In very personal terms, van Fraassen speaks of his own attachment to God, even beyond the possible failure of all that counts today as evidence for the Christian faith. At a conference, at Notre Dame University in March 1990, on philosophical theology and biblical exegesis (disciplines that hardly ever meet), he put to his audience the challenge to “imagine [... their] worst-case scenario” — archaeology uncovering new wholly trustworthy documents proving that even the most fundamental events of the Christian faith cannot be relied on. His own answer did not emerge without traumatizing inner strife:

One long, sleepless night last week I struggled with this question: what would I think then? how would I react? how would I emerge from this? It was not at all easy to say what I do believe, or to what degree — as St. Augustine said about what time is, I know it as long as you do not ask me. But that some such scenario would shatter a picture of reality that I cherish, that there once was a carpenter in Whose footsteps we falteringly walk, that is clear. A thousand details could fall individually without harm; if they fell all at once, however, to be replaced by a grinning nightmare, that would shatter what I have. But in the end, and it

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<sup>10</sup> VAN FRAASSEN (1980), p.12, cf. p.202 ; VAN FRAASSEN (1994b), p.130.

<sup>11</sup> VAN FRAASSEN (2002), p.184f. He takes his clue from Martin Buber’s *The Eclipse of God* (Atlantic Highlands (N.J.): Humanities, 1988<sup>rev</sup>), p.13.

was coming close to dawn, I found my answer. I said: God, I would not hold it against you. ...<sup>12</sup>

Religion involves a deep personal commitment, beyond and above any historical proofs or doctrinal formulations. For van Fraassen, faith in God may even survive the destruction of the very center of the actual Christian belief that is God's revelation in Christ. It is therefore a stance that is not ultimately linked to its present formulation — very much in line with the empiricist attitude which also transcends the theories that guide scientific practice. Thus, religion and empiricism have the necessary potential to live through the traumas of deep conceptual revolutions; as *stances*, they persist in a world which does not offer any guarantee of factual stability.

In spite of striking parallels between van Fraassen's stances in religion and philosophy of science, differences subsist. The role that theoretical constructions play in science and in religion is not identical, albeit the noted similitudes. Whereas van Fraassen rejects all the desperate efforts of logical positivism to eliminate theoretical entities from science, he considers that metaphysical theories and natural theology do not accomplish any productive work in religion. If one looks for an element in religious practice that is similar to theories in science, one should instead turn to the doctrinal formulations of the ecumenical creeds. In contrast to the writings of most contemporary philosophers of religion, these ancient creeds allow for mystery, inherent in every formulation of religious experience<sup>13</sup>. The fact that van Fraassen practices faith inside a particular religious tradition (that is Roman Catholicism), which has its doctrinal statements, suggests that his understanding of mystical religion allows for certain kinds of linguistic expressions of religious experience. That such historical formulations of faith are ultimately revisable on van Fraassen's view does not distinguish

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<sup>12</sup> VAN FRAASSEN (1993b), p.323.

<sup>13</sup> VAN FRAASSEN, private communication, 13 February 2004, confirmed in an electronic message, 11 May 2004, in which he expresses his willingness to see his remarks published.

religious theories from scientific ones, which participate as well in the fluidity of the empiricist world.

## ●2. Mystical experience and the word

The provisional character of all religious formulations — even with regard to central claims — agrees with van Fraassen's conviction that "the only true religion is mystical religion<sup>14</sup>." He sets mystical experience against the conception of modern times, that originated at the Renaissance with its new techniques of perspectival representation, which allowed divine and human actors to be included in the same space. Even

when the finite, spherical cosmos [of the Ptolemaic worldview, still prevalent at the Renaissance] was replaced in Galileo's time by a translation-invariant infinite space, the more symbolic medieval rendering did not come back [...] Instead the divine was thereafter depicted simply through scrupulously observed and intricately rendered earthly effects. The sense of the wholly Other, the felt but uncomprehended mystic presences pointing beyond themselves to a world not of this world, and not located with respect to our world, was lacking in such mundane perspective<sup>15</sup>.

One trait of mystical experience is of particular interest in the context of van Fraassen's thought: it is ineffable. Here we find (or at least aim at) an encounter with the divine, ultimately unmediated by the word. Although in general the mystic also adheres to some form of doctrinal expression of her faith, her experience transcends any theoretical formulation. Doctrine is never more than penultimate in such a perspective. It may play an indispensable role in the process of preparation and even accompany necessarily mystical

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<sup>14</sup> VAN FRAASSEN (2002), p. 251, n.1.

<sup>15</sup> *Ibid.* p.176f.



experience; but it has never more than an ancillary function and remains inadequate to express the reality encountered.

Therefore the mystical understanding of religion shows striking similarities to constructive empiricism in science. Mystical religion is built on experience, the only source of true insight accepted by the empiricist. Thus it perfectly suits van Fraassen's approach to both science and religion, when he concludes *The Empirical Stance* by a reformulation of Socrates' answer to Cratylus:

If we can learn about things both from the words about them and from those things themselves, which is likely to be the clearer and nobler way<sup>16</sup>?

Reality not words, experience not concepts — such is the war cry of the empiricist. Theories, be they religious or scientific ones, are useful tools, yes even a constitutive element of the corresponding forms of life; but they remain forever inadequate to express the realities with which the believer or the scientist are in contact.

The critical distance towards theoretical formulations is no marginal aspect of mystical religion: in such a context, religious experience has to be ineffable if the transcendence of the divine is to be maintained. If religion is based on human experience and the only spoken words are those of the believer reflecting on his experience, religion must always be ultimately inexpressible; otherwise one lands in outright reductionism, limiting God to what humans say about Him. Van Fraassen rightly underlines that a religion that tries to reduce the divine to what scientific inquiry can discover is but “rhetorically embellished pantheism<sup>17</sup>.” A wholly immanent religious experience will certainly never attain the transcendent God. In fact, one might well wonder if it should rightly be called religious at all.

This view on religion connects to what van Fraassen says about the encounter between two persons, in so much as he maintains the conception of a personal God<sup>18</sup>. For

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<sup>16</sup> *Ibid.* p.196, which is inspired by *Cratylus* 438f (cf. VAN FRAASSEN (2002), p.256, n.35).

<sup>17</sup> VAN FRAASSEN (2002), p.193.

<sup>18</sup> *Ibid.* p.190, 192.

him, empathic understanding of another person involves mystery; it happens exactly when objectifying inquiry breaks down:

The developments that throw normal objectifying inquiry into crisis [...] are precisely the best outcome such inquiry can have. When the other person appears as a mystery, when the encounter is apprehended as contact with another world only overlapping one's own, when experience no longer fits the everyday pigeonholes, that is the dawn of true understanding<sup>19</sup>.

Note the distinctively antithetical presentation: personal encounter is set over against scientific exploration. This is without question an advance in comparison to reductionist accounts of personhood which continue to prevail in many scientific and philosophical quarters. Van Fraassen is right when he complains that "for much contemporary philosophy this domain of interpersonal knowledge and interaction is simply terra incognita. It is easier to escape into theoretical-sounding, quasi- (if not blatantly pseudo-) scientific questions of fact about 'mental states'<sup>20</sup>."

One might wonder if the price that van Fraassen pays for resisting materialism is not too high. Is the paradoxical flavor of van Fraassen's approach really helpful in describing what it means to know a person? A person always transcends her words. Nevertheless, they are the privileged means that disclose her to the empathic listener, and true encounter happens where they are understood and believed.

There are other promising venues that avoid the antithetical ring of his treatment, without falling prey to reductionism. For instance, Michael Polanyi establishes a hierarchy of knowledge: the personal dimension of knowledge is already present in the hardest sciences. But "as we ascend to higher manifestations of life, we have to exercise ever more personal

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<sup>19</sup> *Ibid.* p.171f; cf. p.175.

<sup>20</sup> *Ibid.* p.192.

faculties Ñ involving a more far-reaching participation of the knower<sup>21</sup>.” Hans Urs von Balthasar takes the encounter of another person as the paradigm of knowledge. Scientific inquiry, though legitimate, cannot set the agenda, but is an inferior form of openness to the Other, that does not attain the same depth of meaning as interpersonal knowledge<sup>22</sup>. These are certainly interesting suggestions to explore, if one wants to follow up on van Fraassen’s lead and work out non-reductionist accounts of personhood. In opposition to his own formulations, they offer the advantage of avoiding the antinomy between scientific and personal knowledge that might very well exhaust his well-directed efforts.

Going beyond the antinomy might also allow us to recover truthful speech in religion. In a Judaeo-Christian perspective, the mystic’s emphasis on ineffable experience does not agree readily with the centrality of God’s Word. In fact, the traditional understanding does not see in the Bible an imperfect witness to the human experience of the divine, but rather God revealing Himself in the Holy Writ. The verbal form of this revelation does not constitute a defect that is transcended in true religious experience; it is constitutive of the manner by which God has made Himself known. Encounter with the divine should therefore not be sought beyond the Word, but always in, through and by God’s verbal self-disclosure. As Martin Luther writes: “We must hold firmly to the conviction that God gives no one his Spirit or grace except through or with the external Word which comes before<sup>23</sup>.”

Where we accept mediation by the Word, we can confess God’s transcendence, without inviting skepticism concerning the validity of speech about God. In this way, the antithesis between religious experience and doctrine can be overcome. Even the nineteenth-

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<sup>21</sup> POLANYI (1958), p.347. It may be possible to bring together some of van Fraassen’s thought with this Polanyian suggestion. In fact, van Fraassen describes the relation of objectifying inquiry of religious experience and the true experience itself in terms akin to the Polanyian distinction between attention paid to the subsidiary level and focal awareness (VAN FRAASSEN (2002), p.184f). The tacit integration of subsidiary clues into a coherent focal pattern is a keystone of Polanyi’s epistemology and of his understanding of personal encounter (cf. for ex. POLANYI, PROSCH (1975), p.34f, 48).

<sup>22</sup> BALTHASAR, (1966), p.71f.

<sup>23</sup> *Smalcald Articles*, 1537, art. VIII, in TAPPERT (1981), p.312.

century Princetonian theologian Benjamin Warfield raises the accusation that “mysticism is simply [...] pantheism expressed in the terms of religious aspiration<sup>24</sup>.” Might it be that paradoxically mystical religion destroys the very treasure that it was called to preserve? Mysticism certainly has, in most of its historical expressions, spoken of union with God and aimed at the fusion of the believer into the divine reality. In spite of mystical voices inside Jewish and Christian traditions, it is obvious that such language, at least understood literally, stands in clear tension with the distinction between the Creator and the creature that structures Biblical thought. God’s transcendence is not in any way well served by efforts to achieve mystical union with the divine, and pantheism may well not be far away.

### ●3. The world as text

Language is not only fundamental to religious experience in the Biblical tradition because of God’s self-disclosure in the sacred texts, but the Scriptures also use the metaphor of speech in relation to the structure of the world. The opening chapter of Genesis has already shown God’s Word giving rise to an ordered universe. Divine Word structuring reality is given special importance in the New Testament in that creation and its corollary, the providential sustaining of the world, are specifically attributed to Christ, called the *Logos* in the opening verses of the fourth gospel. From this perspective, the universe is a “speaking” universe<sup>25</sup>, the world a text. One is reminded of Derrida’s slogan “*There is nothing outside the text*”<sup>26</sup>; but the affirmation acquires a totally different meaning compared to Derrida’s. Yes, it is text all the way down; one never hits rock bottom of unmediated experience, of uninterpreted existence. But to keep the metaphor, one could say that we read the text in the

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<sup>24</sup> WARFIELD (1917), p.656.

<sup>25</sup> I take the metaphor from a private communication by Charles HARPER, 25 April 2003.

<sup>26</sup> *Of Grammatology*, tr. Gayatri Chakravorty Spivak (Baltimore: John Hopkins Press, 1976), p.158, quoted by WESTPHAL (1999), p.429.

*presence* of the author: the text is neither unintelligible, nor is it open to any imaginable (de-)construction. The world has a definite structure that invites rational inquiry. Relativism can be avoided because there exists a supreme interpretation of the world's structure, whose truth is guaranteed by the authority of the Creator Himself.

Are we then back to classical rationalism and to its conviction of the adequacy of human intelligence to grasp the essence of things? Are once again the powers of reason over-estimated? Not at all, because nature's structure is not of immanent origin, but proceeds from God's Word. It is thus not totally transparent to human reasoning; theology has always confessed, in line with the Biblical texts, not only the incomprehensibility of God Himself, but also of His works. The world's "text" is understood in the first place by God. God's knowledge then sets the stage for human knowledge. According to Cornelius Van Til, we are called to think God's thoughts after Him: "God [...] must be thought of as being determinative of the objects of knowledge. In other words, he must [...] be thought of as the only ultimate interpreter, and man must be thought of as a finite reinterpreter<sup>27</sup>." Jean-Luc Marion discerns the same order in Descartes:

The infinite reveals itself [...] as primary. [...]his inversion means that the infinite precedes the finite — human thought, which organizes and deploys its sciences — as a horizon forever already prepared to welcome in advance its every progress and desire<sup>28</sup>.

As the finite human reason cannot comprehend the infinite, the infinite is necessarily incomprehensible. However, such incomprehensibility does not lead to ignorance. Quite to the contrary, for Descartes, God is present to the human spirit as the clearest idea:

This idea, precisely because it is infinite and the transcendental condition of all other ideas, surpasses them all epistemologically, so that the impossibility to understand it as a finite object coincides with its perfect clarity and distinctness, its incomparable truth<sup>29</sup>.

In fact, it is divine incomprehensibility that allows the human knower to obtain true knowledge in spite of his finitude : he can stop aiming at omniscience, without giving in to

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<sup>27</sup> VAN TIL (1969b), p.203.

<sup>28</sup> MARION (2002), p.112.

<sup>29</sup> *Ibid.* p.113.

irrationalism, as God knows perfectly the part of reality that lies beyond human grasp and guarantees its rational character. Recognizing frankly the derived character of human thought thus frees us from the rationalist ideal of complete knowledge, forever beyond our forces<sup>30</sup>.

#### ●4. Human knowledge after foundationalism

Embedding human knowledge into the wider context of divine wisdom provides a promising venue which should be explored in order to go beyond the alternative that lies at the heart of van Fraassen's epistemology: foundationalist illusion or bridled irrationality. Van Fraassen's empiricism as a stance is permeated by the conviction that the Enlightenment project of universal, certain and neutral knowledge is shipwrecked beyond rescue. His insistence on the failure of foundationalism makes him part of a large family of post-positivist approaches in contemporary philosophy. *The Empirical Stance* can be read as a plea for the givenness of experience, which does not call for an explanation with the help of our rational constructions. His recent book thus radicalizes themes prominent in van Fraassen's earlier writings on constructive empiricism: the rejection of demands of universal explanation and, as a corollary, the resistance to read theoretical entities introduced by scientific theories in a realistic manner — be they unobservable objects or laws of nature<sup>31</sup>.

In *The Empirical Stance*, this strategy is generalized and applied to experience as a whole. It is not only patterns of observed, or more precisely observable, phenomena that we should not try to reduce to a postulated more fundamental layer, but experience as a whole acquires its autonomy and stands no longer in need of a theoretical foundation. Instead of looking for grounds for scientific practice, van Fraassen reads it as a form of life, where its

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<sup>30</sup> VAN TIL (1969b), p.200, and VAN TIL (1969a), p.17, 26, 135.

<sup>31</sup> VAN FRAASSEN (1980), p.19-34; VAN FRAASSEN (1989b), p.243-254; VAN FRAASSEN (1989a), p.97-113.

practice is the only “justification” that is needed for it<sup>32</sup>, and therefore van Fraassen’s empiricism escapes the Kantian charge of dogmatism by interpreting experience in a distinctive existentialist sense. Far from being equivalent to isolated entities, as simple ideas, sense data or the positions of a needle on a measurement instrument, “experience is first of all *my* experience”; constructive empiricism rehabilitates, Michel Ghins writes, the “‘I’ in the first person, forever-already, [...] thrust into the world with his language, his commitments, his beliefs, and immersed into a tradition sustained by a community<sup>33</sup>.”

Given his radical break with the positivist ideal of objective knowledge, van Fraassen has himself set out to develop “a prolegomenon to any future empiricist epistemology<sup>34</sup>”, that strives to sufficiently take into account the personal dimension of human knowledge. His epistemological work followed the programmatic book *The Scientific Image*, “in order to provide it with a hospitable setting in epistemology<sup>35</sup>”. His epistemology tries to escape the strait jacket of traditional canons of rational justification, that do not allow to take into account the more creative uses of human intelligence, especially in the moments of great conceptual revolutions, be it in science, art or religion<sup>36</sup>. It follows the English ideal of rationality, over against the Prussian (at least as far as the clichés go): “What is rational is not to be identified with what is rationally compelled but with its dual: *what is rationally permitted*, anything which has no contrary that is rationally compelled. [...] *Rationality is but bridled irrationality*<sup>37</sup>.” Van Fraassen certainly does not ignore the choking ring of the last phrase; but the provocation is not gratuitous: nothing less than a radical break with traditional

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<sup>32</sup> VAN FRAASSEN (2002), p.119-125.

<sup>33</sup> GHINS (2000), p.446.

<sup>34</sup> VAN FRAASSEN (2002), p.65.

<sup>35</sup> VAN FRAASSEN (2001), p.167. Van Fraassen put forth the main ideas of his program in VAN FRAASSEN (1984), taken up again and further developed in VAN FRAASSEN (1995b).

<sup>36</sup> VAN FRAASSEN (2002), p.172f.

<sup>37</sup> VAN FRAASSEN (1995a), p.71. Cf. VAN FRAASSEN (1989), ch.7.

epistemological standards will provide a coherent framework for empiricism after the failure of foundationalism.

## ●5. “English” rationality and the specter of relativism

There is one striking feature of voluntarist epistemology as van Fraassen constructs it: personal responsibility enters the stage precisely when rational constraints on knowledge come to an end. Referring, for example, to the two epistemic desires that William James had discussed in his “The Will to Belief” — to believe truth and to avoid error —, van Fraassen highlights the point that “although truth and error are objective categories, handed to us by nature itself, so to speak, this measure of balance [of truth believed as against error avoided] is not!” To use a term coined by Isaac Levi, it is “our individual risk quotient”, “an important personal factor, differing from the stout of heart to doubting Thomas and vacillating Hamlet.” It is exactly in this place that van Fraassen sees personal responsibility come to the forefront: “suddenly, [...] the responsibility for a crucial value judgment has landed on us ourselves<sup>38</sup>.”

The same conviction surfaces again and again in his writings. For him, more traditional epistemologies, according to which some epistemic rules (be it induction, inference to the best explanation or what have you) “determine a uniquely correct belief (neither too strong nor too weak) on the basis of the given evidence”, are “a flight from personal responsibility for one’s chancy choices<sup>39</sup>”. Commenting on Pascal’s wager, he voices his conviction that “a uniquely directed sense of rationality does not go with the conception of bridled irrationality<sup>40</sup>.” Genuine liberty does not flourish on the soil of rational constraints. Without

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<sup>38</sup> VAN FRAASSEN (2002), p.87.

<sup>39</sup> VAN FRAASSEN (2001), p.162.

<sup>40</sup> VAN FRAASSEN (2002), p.98. Van Fraassen follows CHEVALLEY (1995), p.100-107, in reading Pascal’s wager as leaving open which way is the rational course of action. Thereby Pascal’s wager becomes an example of responsible



following Feyerabend in his extremist sarcasm, van Fraassen accepts his contention that “if the rule of faith is actually empty but available for polemical use, we gain a terrible new freedom<sup>41</sup>.” Neither the Bible for the Protestant nor experimental evidence for the empiricist uniquely determine theoretical reconstructions of the reality. The leeway gained by underdetermination calls for our decision and implies thus our moral responsibility in the epistemic endeavor.

It is obvious that the “English” ideal of rationality is threatened by the specter of relativism. If facts underdetermine scientific theories, if rational constraints underdetermine epistemic choices, what else is there left than unhampered leaps of (irrational) faith? How can we then understand our moral responsibility as something more than the power to take arbitrary decisions? In the absence of foundations, how can philosophical reasoning be more than the attempt of, to use Michael Polanyi's wording, “trying to convince myself<sup>42</sup>”, without any force of conviction for somebody not already thinking along the lines of my own convictions?

Van Fraassen is clearly aware of this difficulty, as he writes: “I tried to work out a liberal epistemology. Well, to some eyes it may look not so much liberal as libertine...<sup>43</sup>.” It will not do to close our eyes before the historical conditioning of human knowledge, to deny our epistemic embeddedness. “The task for philosophy cannot be to execute the impossible rescue<sup>44</sup>.” Van Fraassen's voluntarist epistemology is thus a call to courageously face our

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epistemic decision without rational constraints. It shows us that “choice and its responsibility never slip from our shoulders; no recipe for rational behavior can remove them” (VAN FRAASSEN (2002), p.100).

<sup>41</sup> VAN FRAASSEN (2002), p.249, n.27, drawing on Paul K. FEYERABEND (1951), “Classical Empiricism”, *Problems of Empiricism* (Cambridge: C.U.P.), p.51.

<sup>42</sup> POLANYI (1958), p.265. To counter a common misunderstanding of Polanyi's philosophy, may it be pointed out that he does not yield to epistemic relativism.

<sup>43</sup> VAN FRAASSEN (2001), p.167.

<sup>44</sup> VAN FRAASSEN (2002), p.133.

finitude and not to protect ourselves against the specter of relativism by longing for an epistemic perspective from nowhere.

Van Fraassen himself takes up the challenge of skepticism in an article with the telling title: “From vicious circle to infinite regress, and back again<sup>45</sup>.” The kind of relativism that he tries to countenance there is more precisely of the Kuhn-Feyerabend type: the specter of “loss of experience”, that makes its appearance because the theory-ladenness of experience threatens any clear distinction between the observable and the theoretical<sup>46</sup>. It is possible to discern two main strategies that van Fraassen employs in order to dispel the specter of relativism<sup>47</sup>. On the one hand, he reminds us that nothing other than a perspectival view of knowledge truly takes into account our condition of historically conditioned knowers; there is just no God’s eye view available for human beings. The specter wants to whisper to us that our own perspective and standards are arbitrary if looked upon from above. “Would it not be totally *arbitrary* to endorse our own [perspective], the only we actually have, and say *we live here*, those goals are the ones which are *worthwhile*, that is what the world is like?” We should resist that insinuation because “by hypothesis that is the one we endorse! Endorsement reflects our own perspective, and is not endorsement if it doesn’t. To say that we are arbitrary unless our endorsement is perspective-free is to hold us to a logically impossible standard, asking us to judge without judging<sup>48</sup>.”

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<sup>45</sup> VAN FRAASSEN (1993a), p.6-29.

<sup>46</sup> *Ibid.* p.13. Although using the “common namer” Kuhn-Feyerabend relativism, van Fraassen does not preclude the question if both the philosophers held that view.

<sup>47</sup> There is another strategy on which I do not dwell here: Van Fraassen points out that we know how to locate ourselves on inaccurate maps (*ibid.* p.13f). This certainly is an interesting direction to explore when it comes to describe how knowledge works practically. But it does not help to counter Kuhn-Feyerabend relativism on a more fundamental level, because, in order to know that a map represents, even if inaccurately, we already need to be assured that we have epistemic access to reality.

<sup>48</sup> *Ibid.* p.27.

This first strategy certainly is in line with van Fraassen's insistence on philosophical positions as *stances*; however, it comes down, in the end, to a re-affirmation of *my* commitment to *my* worldview — which normally does not count as a legitimate answer to relativism. Even if it was true that such an answer were the best we are capable of, it should not count as refutation of relativism. If we had to acknowledge such a desperate situation as ours, the only rational course of action would be to turn into self-conscious relativists.

Yet, this is not the direction van Fraassen is willing to take. The second strategy then brings into play his empiricism: "Since I hope and try to be an empiricist, I want to resist Kuhn-Feyerabend relativism with all my might<sup>49</sup>." It is experience that comes to rescue us from the threat of relativism. Already in *The Scientific Image*, he had drawn the distinction between "*observing*" and "*observing that*": for example, a Stone Age native may see a tennis ball without seeing that it is a tennis ball, because he does not know anything about tennis<sup>50</sup>. Similarly, van Fraassen distinguishes in *The Empirical Stance* between experience as happening and experience as judgment<sup>51</sup>. Although he recognizes the inextricable links between the active and the passive sides of experience (what happens to me and my judgment in response to it), he seems to be willing to recognize a kernel of experience that does not depend on any theory- or value-laden appreciation by the subject. In particular with regard to the observable-unobservable distinction, fundamental to constructive empiricism, he insists that it "is in no important sense theory-relative or theory-dependent<sup>52</sup>."

We can see by now that both strategies of defense merge into one: the appeal to experience as the grounds where all questions end. As in van Fraassen's post-positivist framework all experience is perspectival, dependent on our historical and social setting, it can come to us only in multiple forms: experience is necessarily *my* experience — or perhaps better the experience of the community I choose to identify with. Experience,

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<sup>49</sup> *Ibid.* p.13.

<sup>50</sup> VAN FRAASSEN (1980), p.15.

<sup>51</sup> VAN FRAASSEN (2002), p.134.

understood in this existential posture, is therefore the only guarantee that the empirical stance has to offer against relativism — it is part of its commitment that such a guarantee suffices.

## ●7. Foundationalism in post-modern clothes?

The appeal to experience is without any doubt essential to the empirical stance. But may it not be the backdoor by which foundationalism will creep in once again? In order to protect himself against debilitating skepticism (and probably also to keep in line with established scientific practice), the empiricist, even after having listened to Kuhn and Feyerabend, clings to a kernel of unmediated experience. Against Derrida, it is not text all the way down, somewhere open interpretation ends and experience provides, if not a foundation in the Enlightenment sense, at least a resting place. But Kant has told us that there is no such thing as unmediated presence<sup>53</sup>, and van Fraassen knows well enough that there are no brute facts, that experience always implies judgment. Nevertheless, it now becomes apparent that the empiricist cannot draw all the conclusions that the Kantian insight forces on him, without giving up what constitutes the very center of his stance.

We discover here a far-reaching tension in van Fraassen's program. He has set out to provide an account of human knowledge after the failure of foundationalism. In fact, we have seen him reject the Enlightenment project, with its demands of a theoretical grounding and universally valid standards of justification. Yet, he has not given up on the project of constructing (at least a prolegomenon of) an empiricist epistemology, with its reference to human experience as the touchstone of all convictions. Thereby he turns experience, albeit his explicit rejection of foundationalism, into a certain kind of foundation. To be fair to van

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<sup>52</sup> VAN FRAASSEN Bas (1993a), p.19.

<sup>53</sup> Cf. WESTPHAL ((1999), p.430.

Fraassen, one has to point out that this newly found epistemic grounding is neither theoretical nor universal; therefore he has clearly broken with the Enlightenment ideal of knowledge. But, he does not (and cannot, if he wants to resist relativism) give up on searching for some resting place for our knowledge.

It should be noted that the empiricist “foundation” is of an immanent, this-worldly kind. Notwithstanding all his protests, van Fraassen is therefore perhaps closer to Cartesian foundationalism<sup>54</sup> as he would want to acknowledge. By placing the human knowing subject in the center, he reveals himself as profoundly modern, in the sense that some speak of the publication of Descartes’ *Discours de la méthode* in 1637 as the decisive starting-point of modernity. “Descartes’ exploit was to install the human thinker as the necessary departure point of philosophical reflection<sup>55</sup>.” In a certain sense, Descartes invents the human subject, and the empiricist stance owes at least so much to the mainstream Western philosophy that it does not want to break with that aspect of the tradition. In fact, one may wonder if van Fraassen’s insistence on change and openness to revision — which gives his position its post-positivist, some may say post-modern<sup>56</sup> color — does not blend perfectly in with the modern paradigm. The veneration of the new is a striking feature of contemporary Western civilization, when set in comparison with other cultures. The Enlightenment rejection of authoritative tradition, celebrating progress, even the very name “modernity”, point to an important shift in viewing the past and the role it should play in understanding ourselves.

Over against “classical” modernity (note the oxymoron!), van Fraassen’s relativization of epistemic paradigms presents the advantage of being self-consistent. He escapes dogmatism with regard to his own setting: post-positivist empiricism now acknowledges that

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<sup>54</sup> By using this common namer, I do not take any stand concerning the question if Descartes himself was Cartesian in this sense. His thought might be subtler than current received ideas would suggest. Especially, the place of God in his system might be more capital than some modern commentators are willing to accept.

<sup>55</sup> SHERRINGHAM (1992), p.122.

<sup>56</sup> A qualification that van Fraassen explicitly uses to describe his position (alongside the adjective “post-foundationalist”) in VAN FRAASSEN (1999a), p.50.

the honorific epitaph “new” depends on the perspective I adopt — what is modern today, will be tradition tomorrow. But, despite his explicit rejection of the Enlightenment project, van Fraassen shares in its endeavor to establish the human subject as autonomous. His is “the ecstasy of freedom in a world governed by no laws except those we create ourselves<sup>57</sup>.” As van Fraassen puts it pointedly himself, “empiricism is [...] a manifesto of the autonomy and self-sufficiency of natural reason<sup>58</sup>.” Thus van Fraassen’s thought may show more affinity to the Promethean project of classical foundationalism than he himself would probably like<sup>59</sup>.

## ●8. Salvation through radicalism

Having discovered deep-reaching tensions in van Fraassen’s program, which might well not find any solution inside this framework, it is time to remind ourselves of the other insinuation that Descartes’ thought offers us, according to Jean-Luc Marion’s interpretation: the necessity to embed human knowledge in the wider context of divine wisdom. In a certain sense, this perspective is even more radical than van Fraassen’s voluntarist epistemology. The empirical stance tries to establish knowledge on the basis of unmediated, personal experience, thus it maintains some kind of immanent grounds in spite of its declared rejection of foundationalism. Thereby, it does not escape the temptation of *positing* an immanent foundation — be it non theoretical and perspectival — instead of *receiving*

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<sup>57</sup> VAN FRAASSEN Bas (1994b), p.123

<sup>58</sup> VAN FRAASSEN (2002), p.205. The phrase comments on a text taken from Kant’s discussion of the Antinomies of Pure Reason, in the *Critique of Pure Reason* (A468; B496), but it seems fairly obvious that van Fraassen identifies himself with the drive attributed to empiricism.

<sup>59</sup> There is another aspect in regard to which he is suspiciously modern: testimony does not seem to play any significant role in his epistemology. There is place for the communal character of the scientific enterprise; but it sets basically the stage on which individual experience takes place. In the end, *my* experience is the ultimate judge; faith based on testimony does not come in as a distinct factor.

thankfully the transcendent grounding of all epistemic endeavors<sup>60</sup>. The vision of a world structured by divine Word rejects any immanent foundation; human knowledge finds its ultimate point of reference in transcendent Wisdom. As human knowledge is set in the larger framework of God's knowledge, humans can obtain true knowledge notwithstanding the limited character of their understanding.

The tensions we have found traversing the empirical stance might well be linked to what van Fraassen's program owes to the modernist paradigm. Herman Dooyeweerd considers that any autonomous thought is necessarily antithetical in nature: as humans can only think with reference to the divine, they will always sacralize one aspect of the created realm, so long as they do not accept the transcendent foundation of all knowledge. But

the religious absolutization of particular aspects cannot fail to call forth their correlates, which in the religious consciousness begin to claim an absoluteness opposite to that of the deified ones.

In other words, any idol that has been created by the absolutization of a modal aspect evokes its counter idol.

Consequently, the dialectical basic motives are always characterized by an ultimate antithesis. This antithesis divides the religious impulse of the ego and thereby prevents the insight into the radical unity of the human selfhood in its central relation to the whole of our temporal horizon of experience<sup>61</sup>.

Even more precisely, the opposition between rational constraints and moral responsibility, which plays an important role in van Fraassen's concept of rationality as bridled irrationality, seems to be indebted to the antithesis between nature and liberty, by which Herman Dooyeweerd characterizes modern thought: freedom understood as independence from pre-established order<sup>62</sup>. In a certain sense, that antithesis lies at the very heart of what van Fraassen designates by voluntarist epistemology. Our will comes into play

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<sup>60</sup> This manner of speaking is inspired by Daniel HILLION who formulated, in a private discussion, the vivid metaphor of *positing* a foundation, over against *discovering* a foundation, in order to characterize the modern epistemological attitude (27 April 2003).

<sup>61</sup> DOOYEWEERD (1975), p.36f.

<sup>62</sup> *Ibid.* p.45-51.

when reason can no longer guide us; human creativity is essentially linked to those aspects of the epistemic endeavor that are not regimented by rules.

This epistemic antithesis points towards another antithesis, which van Fraassen shares with many empiricists: The distrust of theoretical descriptions of nature goes with the conviction that reality is (or at least may be) basically unstructured, chaotic. He values the empirical sciences as “a paradigm of rationality”, but they are “a paradigm of rationality in a largely irrational and often anti-rational world<sup>63</sup>.” He quotes from Robert Silverberg’s novel *The Stochastic Man*, to describe what “is the world of empiricism”: “The concepts of cause and effect are fallacies. There are only *seeming* causes leading to *apparent* effects. Since nothing truly follows from anything else, we swim each day through seas of chaos<sup>64</sup>.” Jean-Paul Sartre has famously given literary expression to this outlook on the world in *Nausea*. The hero Antoine Roquentin experiences the world as a place where anything is possible :

I was there, standing in front of a window whose panes had a definite refraction index. But what feeble barriers! I suppose it is out of laziness that the world is the same day after day. Today it seemed to want to change [...] then, *anything, anything* could happen<sup>65</sup>.

Thus human reason is not at home in nature; there is no guarantee that rational constructions will be vindicated:

You cannot theorize about the world without making decisions and choices about how to theorize. Your decisions and choices may be vindicated or not vindicated, no matter how careful, reasonable, prudent, or humanly justified you are. To say

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<sup>63</sup> VAN FRAASSEN (2002), p.195.

<sup>64</sup> VAN FRAASSEN (1994b), p.123.

<sup>65</sup> *Ibid.*



this is not to detract from reason but to shift our focus from the limited security of reason to the *limitless caprice of nature and history*<sup>66</sup>.

To be sure, science is, as every human undertaking, fallible. The history of science is not only the history of past successes, but also the history of (by now largely forgotten) failures. A realistic assessment of the powers of scientific reason should guard us from overestimating the attained knowledge and keep us humble, open to a change of mind in the face of new evidence. Nevertheless, we may very well want to resist the dark perspectives that empiricism has to offer. Notwithstanding all its estimate for natural sciences, the empirical stance comes down to a profound doubt of the human capacity to grasp nature's structures, because after all there might be none.

With a touch of contempt for the consolations which realism offers, van Fraassen acknowledges "that empiricism deprives us of so much that might comfort us in a hostile world<sup>67</sup>". Divine incomprehensibility as the framework within which to place human knowledge provides an alternative that holds the promise to enable us to escape empiricism's irrationalist features, without falling prey to the illusions of complete knowledge. It allows us to acknowledge that there is more under heaven and on earth than what scientific methods can grasp, and to hold at the same time on to the fundamentally ordered character of reality, being grounded in the transcendent Creator. Thus the conspicuously antithetical relation between reason and nature in van Fraassen's program (and empiricism in general) loses its grip on our imagination.

In an analogous vein, such a vision permits us to overcome van Fraassen's epistemic antithesis, while taking very seriously the failure of foundationalism which he rightly highlights. It is possible to resist his lead in opposing rational constraints and personal responsibility, without adhering to a simplistic conception of human reason following a certain number of fixed rules. Yes, our moral responsibility is engaged in the epistemic

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<sup>66</sup> VAN FRAASSEN (2002), p.224; italics are mine.

<sup>67</sup> VAN FRAASSEN (1994b), p.123.

endeavor. As knowers, we exercise our will and are held responsible for our choices. But in an Augustinian understanding of freedom, our liberty consists in adhering freely to the truth that God's Word sets before us. It does not presuppose a reality that is fundamentally unstructured (at least prior to the imposition of order by human reason), but builds on the personal act of divine creation. The Christian conception of Christ sustaining the universe allows us in particular to harmonize the idea of a structured world and personal commitment. Nominalism is not the only exit after the failure of foundationalism.

## ●Conclusion

When we are faced with the discomfiting perspectives that constructive empiricism offers, it will not do to return to "classical" modernism. Once awakened from our dogmatic sleep (in its modern guise), we should not (and most probably cannot) forget the far-reaching challenges that have been addressed to the Enlightenment project. It is too easy to try to deny the role of personal commitment in all knowledge, to downplay the revolutionary character of (at least some) new scientific theories, to forget the crucial importance and potential multiplicity of presuppositions or to cling to a naive realism, building on a supposedly direct access of reason to nature's patterns.

Van Fraassen's empirical stance shows us the right direction, and we should not look back with nostalgia to the bad old days of Cartesian foundationalism and logical positivism. Yet, the antitheses that creep up in his thought may serve as indicators that he has not yet reached an integrated view. Reichenbach pointed out that classical empiricism was doomed to fail because it accepted, despite all its rhetoric against rationalism, the terms in which its enemy had set the agenda for any account of knowledge. If empiricism were to succeed, it had to be more than a reaction to rationalism that leaves its very presuppositions

unchallenged. His call for a third way, on which van Fraassen elaborates<sup>68</sup>, has to be heard once more. Voluntarist epistemology may share too much with its foe, to help us escape from the illusions of foundationalism. We have to look for a third way: only a more radical break with the modern paradigm will allow us to get away from the antitheses that hamper voluntarist epistemology. I am conscious that the above remarks on human knowledge relying on God's Word that structures the universe, are not more than quick strokes of the paintbrush, that need to be elaborated. I hope that they show us how to proceed from the stimulating insights that have been gained from *The Empirical Stance*.

## ●Bibliography

- BALTHASAR Hans Urs von (1966), *Dieu et l'homme aujourd'hui*, transl. from German Robert Givord (Foi vivante 16; Paris: Descl ze de Brouwer), 342p.
- CHEVALLEY Catherine (1995), *Pascal: contingence et probabilit * (Paris: PUF).
- DOOYEWEERD Herman (1975), *In the twilight of Western thought : studies in the pretended autonomy of philosophical thought*, Nutley (NJ) : Craig Press, 1975, 195 p.
- GHINS Michel (2000), "Pr sentation de Bas van Fraassen", *Revue philosophique de Louvain* XCVIII, p.445-448.
- MARION Jean-Luc (2002), "La raison formelle de l'infini", in *Christianisme: h ritages et destins*, ed. Cyrille MICHON (Paris: Livre de Poche), p.109-131.
- POLANYI Michael (1958), *Personal Knowledge: towards a Post-Critical Philosophy* (Chicago (Ill.) : University of Chicago Press), xiv-428p.
- POLANYI Michael, PROSCH Harry (1975), *Meaning* (Chicago (Ill.) : University of Chicago Press), 246p.
- REICHENBACH Hans (1959), *Modern philosophy of science: selected essays*, transl. and ed. Marie Reichenbach (London: Routledge & Kegan Paul).
- SHERRINGHAM Marc (1992), *Introduction   la philosophie esth tique* (Paris: Payot), 313p.
- TAPPERT Theodore G. (ed.) (1981), *The Book of Concord: The Confessions of the Evangelical Lutheran Church* (Philadelphia (Pa.): Fortress Press), 717p.

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<sup>68</sup> VAN FRAASSEN (2000), p.253-261, and VAN FRAASSEN (2002), p.39f, 220-224; commenting on Hans

REICHENBACH, "Empiricism and Rationalism: an Inquiry into the Roots of Philosophical Error", 1947, in REICHENBACH Hans (1959), p.135-150.

- VAN FRAASSEN Bas (1980), *The Scientific Image* (Oxford: Clarendon Press), viii+235p.
- VAN FRAASSEN Bas (1984), "Belief and the will", *Journal of Philosophy* LXXXI, p.235-256.
- VAN FRAASSEN Bas (1988), "The peculiar effects of love and desire", in *Perspectives on self-deception*, ed. Brian P. MCLAUGHLIN, Amélie OKSENBERG RORTY (Berkeley (Cal.): University of California Press), p.123-156.
- VAN FRAASSEN Bas (1989a), "The Charybdis of realism: epistemological implications of Bell's inequality", in *Philosophical consequences of quantum theory: reflections on Bell's theorem*, ed. James T. CUSHING, Ernán McMULLIN (Notre Dame (Ind.): Univ. of N.D. Press), p.97-113.
- VAN FRAASSEN Bas (1989b), *Laws and symmetry* (Oxford: Clarendon Press), xv+395p.
- VAN FRAASSEN Bas (1993a), "From vicious circle to infinite regress, and back again", in *Proceedings of the 1992 biennial meeting of the Philosophy of Science Association*, ed. David HULL, Micky FORBES, Kathleen OKRUHLIK (East Lansing (Mi.): Philosophy of Science Association), vol.2, p.6-29.
- VAN FRAASSEN Bas (1993b), "Three-sided Scholarship : Comments on the Paper of John R. Donahue, S.J.", in *Hermes and Athena: Biblical Exegesis and Philosophical Theology*, ed. Eleonore STUMP, Thomas P. FLINT (Notre Dame (Ind.): Univ. of N.D. Press), p.315-325.
- VAN FRAASSEN Bas (1994a), "Against transcendental empiricism", in *The Question of hermeneutics: essays in honor of Joseph J. KOCKELMANS*, ed. Timothy J. STAPLETON (Dordrecht : Kluwer Academic Publishers), p.309-335.
- VAN FRAASSEN Bas (1994b), "The world of empiricism", in *Physics and our view of the world*, ed. Jan HILGEOORD (Cambridge: C.U.P.), p.114-134.
- VAN FRAASSEN Bas (1995a), "Against naturalized epistemology", in *On Quine: new essays*, ed. Paolo LEONARDI, Marco SANTAMBROGIO (Cambridge: C.U.P.), p.68-88.
- VAN FRAASSEN Bas (1995b), "Belief and the problem of Ulysees and the sirens", *Philosophical Studies* LXXVII, p.7-37.
- VAN FRAASSEN Bas (1999a), "The manifest image and the scientific image", in *Einstein meets Magritte : an interdisciplinary reflection, The white book*, ed. Diederik AERTS, Jan BROEKHAERT, Ernest MATHIJS (Dordrecht: Kluwer), p.29-52.
- VAN FRAASSEN Bas (1999b), "Response: Haldane on the future of philosophy", *New Blackfriars* LXXX, p.177-181.
- VAN FRAASSEN Bas (2000), "False hopes of traditional epistemology", *Philosophy and Phenomenological Research* LX, p.253-280.
- VAN FRAASSEN Bas (2001), "Constructive empiricism now", *Philosophical Studies* CVI, p.151-170.
- VAN FRAASSEN Bas (2002), *The empirical stance* (New Haven: Yale U.P.), 282p.
- VAN TIL Cornelius (1969a), *A Christian theory of knowledge* (Nutley (N.J.) : Presbyterian and Reformed), 390p.
- VAN TIL Cornelius (1969b), *In defense of the Biblical Christianity*, vol. II: *A survey of Christian epistemology* (Dulk Christian Foundation), xv+228p.
- WARFIELD Benjamin B. (1917), « Mysticism and Christianity », in *The Works of Benjamin B. Warfield*, Grand Rapids (Mi.) : Baker, 1981, p.?? (originally published in *The Biblical Review* II, p.169-191).

WESTPHAL Merold (1999), "Hermeneutics as epistemology", in *The Blackwell guide to epistemology*, ed. John GRECO, Ernest SOSA (Malden (Mass.): Blackwell), p.415-435.