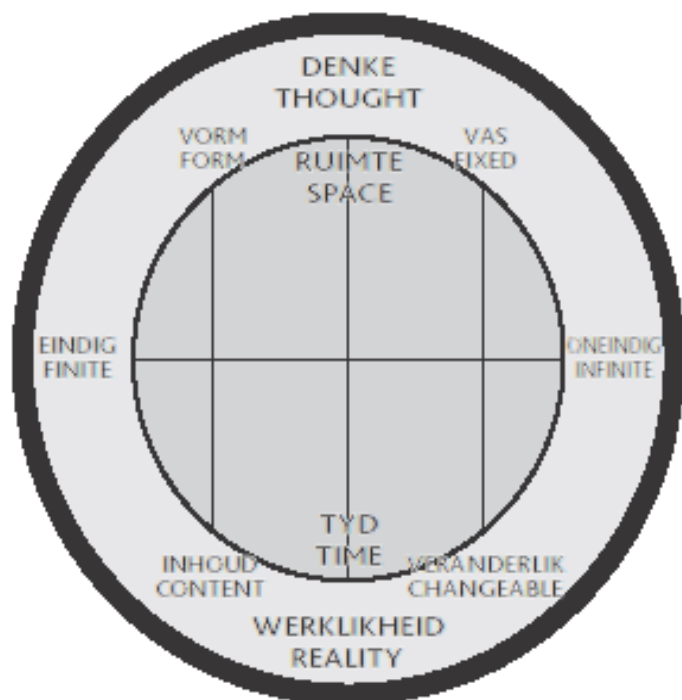


EINSTEIN

Meetkunde En Ervaring Geometry and Experience



Albert Einstein
Meetkunde en ervaring
Geometry and experience

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GEOMETRIE UND ERFAHRUNG

Vertaal in Afrikaans deur Ponti Venter, voorsien van

- kantlynkommentaar,
- 'n inleidende agtergrond oor Einstein se wysgerige denke,
- terminologiese verduidelikings,
- met 'n hersiene vertaling in Engels deur 'n onbekende vertaler
- en geïndekseer

Translated into Afrikaans by Ponti Venter,

- provided with marginal comments,
- an introductory background to Einstein's philosophical thinking
- explanations of terminology
- together with a revised translation into English by an unknown translator,
- and indexed

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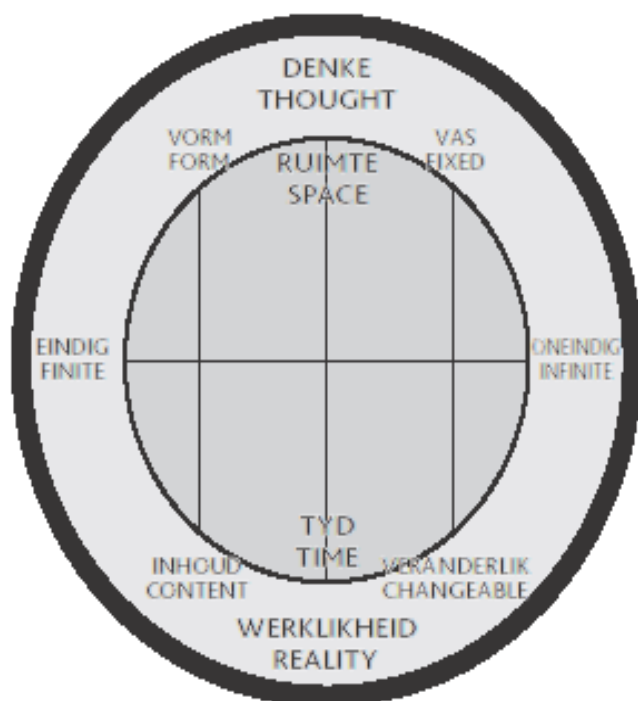
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VOORWOORD

Hierdie vertaling het 90 persent voltooid in my laai gelê vir seker twee dekades soos verskeie ander stukke. Finansiële en ander steun was afwesig. My uitgangspunt is nog altyd dat 'n kleiner taal soos Afrikaans homself nie kan handhaaf deur eksklusiwisme nie. Dis altyd 'n vreugde as kollegas wat ander moedertale praat hulle in Afrikaans aan my voorstel. Inklusief denkend bied ek sover moontlik my vertalings aan saam met vertalings in Engels. Dit bevoordeel beide die Afrikaanstaalige studente asook studente wat Engels gebruik maar aan Afrikaanse universiteite studeer. Ek hoop dat dit ook die breë leserspubliek kan help om iets meer erf-lating van fundamentele geleerdheidstradisies te sien. Ons lees te min en kyk te veel. Ons absorbeer te veel 'informatie' te vinnig, en verteer te min.

Lees stel 'n mens se volle kenfunksie in werking; denkend dekodeer: self prentjies maak want die kode vertel sonder om te teken; jy moet abstraherend dink; jy word gedwing om in te sien en deur te sien in 'n gedagte-wêreld wat jy nie direk onthalwe duidelikheid kan ondervra nie; jouself in 'n historiese perspektief van millenia tot eergister plaas; jou te laat meevoer in 'n ander lewe.

In lees het jy tyd vir krities-kyk na wat die grotes gedink het; jy het *refleksietyd*. Goed en baie lees is deel van ons sosialisering; deel van opgroei, omdat jy rustig en op 'n afstand 'n kykie kry in die mensheid se dwaashede en die verstandighede. Lees is 'n essensiële deel van die oorbrugging van ons vervreemding; afstand-skat tussen waar ons is en waar ons vandaan kom; van volwassewording. Belese mense word nie maklik aan die neus gelei nie.

Diktatoriale regimes hou van sensuur; hulle word mak-

PREFACE

The Afrikaans translation below has been lying, 90 per cent complete, in my desk drawer for about two decades, like some other pieces. Financial and other support have been absent. My point of departure has always been that a minority language, like Afrikaans, cannot sustain itself through outward exclusivism. It is always a joy for me when colleagues speaking other mother tongues present themselves to me in Afrikaans. My thinking is inclusive, therefore, as far possible, I offer my translations together with translations into English. There are advantages in this, both for Afrikaans language students and for those students who use English but study at Afrikaans medium universities. I do also hope that it can help the wider reading public to understand something more of the fundamental traditions in scholarship.

Reading engages one's total act of knowing. One has to decode thinkingly: image the undrawn pictures related by the code; think abstractly, being forced to see in and see through a world of thought which one cannot directly cross-question for the sake of clarity; situate yourself in a historical perspective of millenia up to the day before yesterday; be taken along in another person's life.

In reading one has time to critically assess the great thinkers' thoughts; one has time for *reflection*. Reading well and reading much is part of our socialisation, part of growing up, since in quiet and from a distance one gains a peek into the foolishness and prudence of humankind. Reading is an essential part of the bridging of our alienation; of estimating the distance between where we are and where we come from; of our coming to age. Literate people are not easily led by the nose.

Dictatorial regimes love censorship; they are more easily

liker getref deur skrywers as deur sluipmoordenaars. Mondigwording veronderstel dat jy uit verskeie bronne put. Vandagse bronne is spoedbronne, sonder ruimte vir oordenking en deurdenking.

Selfs filosowe het min tyd om te dink; ook van hulle word snelle 'navorsinguitsette' verwag. Tempo en hoeveelheid het gelyk geword aan kwaliteit. Volwasse en ryp geleerdheid word nie met spoed verwerf nie. Monoteoretiese tegniese navorsing kan met spoed gedoen word. Geleerdheidsgegronde, krities-deurdagte navorsingsinsigte neem dekades. In ons liberaal-ekonomiese tyd is bestuurders soms oorbemagtig; die optredes van talle is onryp-*dikterend* en ook eksploiterend - dit bemoeilik akademiese rypwording t o v moeilike kwessies asook die optimering van talentverskeidenheid.

Belangrik, hoewel die vertalings in die eerste plek die universiteite op oog het, sien ek myself nie as 'n handboekskrywer nie. Eerder 'n ontsluiter; iemand wat probeer om die stof van 'n versteekte skat af te blaas. My breër doel is om 'n wysgerige leserskring te bou, wyer as net studente. En ek hoop hierdie publikasie maak 'n bydrae daartoe.

Dit staan die leser dus vry om eers die vertaalde teks te lees, voordat my kommentaar aan die orde kom. En ja, ek het nie die pretensie dat ek Einstein deurskou het nie. Nog lank nie.

Wat die vertaling betref: vir die Afrikaans het ek die oorspronklike Duits gebruik. Die vertaling in Engels kom van 'n internet-geskandeerde teks met tipiese skanderingsfoute. Vertaler en datum onvermeld. Vergelyk by die Duits is dit nie oral goed nie. Aanpassing by die Afrikaans het ook bygedra om dit te verander.

hit by writers than by assassins. Becoming mature implies drawing on many sources. Contemporary sources are high-speed ones; no space for consideration or thinking through.

Even philosophers have little time to think: they also have to produce speedy 'research outputs'. Rate and quantity have become equal to quality. Mature and ripened learning is not acquired speedily. Monotheoretical technical research can be done with speed. Critically thought-through, insightful research rooted in learning takes decades. In our liberal-economistic era managers may be over-empowered; the behaviour of many is immaturely *dictating*; also exploitative - this over-complicates academics' maturation regarding difficult issues, and the optimising of a variety of talents.

Important: these translations are primarily aimed at universities but I do not see myself as an author of textbooks. Rather as a discloser – somebody who tries to blow away the dust from hidden treasures. My wider aim is to build philosophical readership, wider than only students. I hope that this publication will contribute to this.

The reader is therefore free to read the translated text first, before reading my comments. And no, I do not pretend to have seen all through Einstein. Not for a long time to come!

As far as the translation itself is concerned: for the Afrikaans I have used the original German. The English originates from a scanned internet text, with typical scanning errors; translator and date not given. Compared to the German it is deficient in places. Alignment with Afrikaans also contributed to changes.

TEGNIESE GEBRUIKE

* Verwysings na die termverduidelikings in die *Endnotas* is in die teks aangedui met boskrifnommers soos voetnote, maar in hakies, byvoorbeeld:

"... metafisika⁽¹⁾..."

* Die enkele voetnoot in die Einsteinteks is normaal genummer, d w s sonder die hakies.

* Die bronverwysings is gedoen soos in sommige natuurwetenskapstydskrifte, in die teks genummer soos wat die behoefte aan 'n verwysings homself getoon het. In die verwysingslys is hulle in numeriese volgorde geplaas. In die teks is hulle aangedui met die betrokke nommer in hakies, maar met 'n asterisk vooraan, byvoorbeeld:

"... metafisika (*20), soos ..."

TECHNICAL USAGE

* References to the terminological explanations in the *Endnotes* have been indicated in the text with superscript numbering like footnotes, but in brackets, for example:

"... metaphysics⁽¹⁾ ..."

* The single footnote in the Einstein text has been indicated normally, i.e. without the brackets.

* Source references have been done like in some natural science journals, numbered in the text according to the need for references. In the list of references they have been placed in numerical order. In the text they have been indicated by the relevant number in brackets, but with an asterisk up front, for example:

"... metaphysics (*20), such as ..."

INHOUD/CONTENTS

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