

WHAT IS KYBERNOLOGY?

Taliziduhu Ndraha, Kybernologist
Institute of Home Affairs Governance (IPDN)
Jalan Ampera Raya Cilandak Timur
Jakarta 12560
bkutn@telkom.net

Abstract

There are three essential dimensions of Body of Knowledge: (1) Differentiation, (2) Change, and (3) Innovation. Social-political science resulted from misconduct of powerful actors responsible for the policy making and policy implementation of the state in all levels of government and administration, while the victim are powerless. Human conduct depends on the construction of the knowledge instructed and value internalized, and the changes of environment build up the mindset in those power. However, there's something wrong with the construction of the Body of Knowledge, which is charged into the brain of men in power through education and training program. Ilmu Pemerintahan has been uprooted from the human side and in the power (political) side of the societal phenomena. Bestuurskunde is the only way to return the construction of the Body of the Knowledge, which is by: (1) restore its function, (2) reconstruct its Body of Knowledge, and (3) redesign its training methods and technology.

Keywords: Body of Knowledge, *Bestuurskunde*, education and training

1. INTRODUCTION

Like a building, any body of knowledge (BOK) has three essential dimensions, namely its functions, construction (architecture, design), and building materials. All the three are subject to differentiation, change and innovation. Let us call the state-of-the art of any condition of the three at a time as paradigm.

The paradigm of Public Administration (PA) for example, has changed several times. The lessons from Tennessee Valley Authority (TVA, ca 1930) and the experience of the Third World Development Program implementation since the fiftieth of the last century encouraged the reorientation of the function, the reconstruction of the structure, and the fostering of the PA's building materials (Fred W. Riggs, ed., *Frontiers of Development Administration*, 1971). The impact of the TVA was so significant and the PA's paradigm relevance with the Third World's development program was highly valued, that created a new BOK, i. e. Development Administration.

The paradigmatic change of the PA was happened again in the end of the sixtieth, when the United States of America (USA) was in the time of turbulence and the PA in the time of revolution. The BOK of PA was reconstructed and its

result was known as the New Public Administration (Frank Marini, ed., *Toward a New Public Administration: The Minnowbrook Perspectives*, 1971). The reconstruction was made on the basic assumptions that the politics-administration dichotomy has come to an end, and that President should be politician-administrator, in line with Platonic wisdom thousands years ago: the philosopher-king.

Indonesia has had bitter experiences with post independence (1945) turbulences. The first one happened in the mid of the sixtieth, known as the Indonesia Communist Party's rebellion. In the beginning of the ninetieth, Indonesia also situated in "a time of turbulence" for the second time, culminating in the fall of Soeharto regime (1998). But they have no significant impact on either BOK of Politics, Economics, or Social Sciences related to the turbulence. Of course, there was little cry from the University of Indonesia, shouted out that the Economics has died, and here a short sigh from the University of Gadjah Mada, exclaimed that the Studies of Government now is facing *cul-ce-sac*, but that's all.

The natural turbulence struck Indonesia and other Asia countries at the end of December 2004 is said to be one of the worst in history of mankind, not only the turbulence itself, but even more its impact on human life and natural resources. It invited condolence and global solidarity of many, many nations and NGOs coming for help and relief. In the meantime, New Year edition of the daily newspaper, Kompas, issued an article entitled "Bangsa Yang Hidup Bersama Bahaya," which means "A Nation Destined to Live with Danger."

According to scientific analyses, some of the turbulences, especially social-political ones, resulted from misconduct of the powerful actors responsible for the policy making and policy implementation of the state in all levels of government and administration, while the victims are those who are powerless. On one hand, human conduct depends on the construction of the knowledge instructed and value internalized, and the changes of environment on the other, that build-up the mindset in those in power. If so, what's wrong with the function, building materials, and construction of the BOK charged into the brain of the men in power through education and training program? Why various external changes have no significant influence on the scientific communities to rise up a scientific movement?

Bestuurskunde ("the art of steering"), introduced by the Dutch Colonial Administration in Indonesia at the beginning of the last century. The origin of *Bestuurskunde* can be traced back to a little book consists of 32 pages written by the last *raadpensionaris* of Holland and Westfriesland, Mr L. P. van de Spiegel. The book entitled *Schets der Regeerkunde, in betrekking tot hare oogmerk en middelen* (Outline of the Regeerkunde, its goal and means). It was published 5 years after the writer's death. The preface of the book was written in February 1st 1796. *Regeerkunde* --- the early concept of *Bestuurskunde* --- "is de Wetenschap om eene Burgermaatschappij te leiden, ter verkrijging van het grootste Geluk, waar voor dezelve vatbaar is, zonder onwettige benadeeling van andere." This definition denotes that *Bestuurskunde* (also "the art of governing") is the science which leads the human effort to gain the highest Good of life without abusing the right of others. The highest good comprising all things fulfilling the universal human rights

then declared by the United Nations on December 10th, 1949 (see G. A. van Poelje, *Bestuurskunde*, deel VI “Algemene Inleiding tot de Bestuurskunde,” 1953). The translation of the “Algemene” (*Pengantar Umum Ilmu Pemerintahan*, July, 1959) made by B. Mang Reng Say defined *Regeerkunde* as “Ilmu Pengetahuan yang bertujuan untuk memimpin hidupbersama manusia ke arah kebahagiaan yang sebesar-besarnya, tanpa merugikan orang lain secara tidak sah.” The learning institution of *Bestuurskunde*, upgraded to *Bestuurswetenschap* and then *Bestuurswetenschappen*, gained higher akademik performance, and offered Doctoral (Ph. D.) degree to the students. Two former PhD graduates were Dr R. E. Berends and Dr F. Breedsvelt (1928 – 1933).

When the government of Indonesia adopted the *Bestuurskunde* in university teaching in the mid of the last century, it was placed under the Political Sciences, just as government studies (*kajian pemerintahan*), lower, applicative level of Politics. In another, methodological words, Ilmu Pemerintahan so to say, has been uprooted from the human side and put it in the power (political) side of the societal phenomena. Since then, the beneficiaries of what so called Ilmu Pemerintahan were those in power, while the powerless people stayed poor and victimized.

The only way to rescue the people from any next turbulence, is to pull the *Bestuurskunde* back to its proper place at the human side of societal phenomena, restore its function, reconstruct its BOK, and redesign its training methods and technology (see Figure 1). The replacement is expected to adjust the existing unbalanced frame of reference in either policy making, or policy implementation process, between the government as state service provider on powerful, and the people as state service customers on powerless position. The replacement of *Bestuurskunde* (*Bestuurwetenschap* and *Bestuurswetenschappen*) resulted in a new BOK called **Kybernology**. Etymologically, the new word comprising two root words. Greek *kybernán* and *-logia*. The word *Bestuurskunde* rooted from the Dutch *besturen*, English *steering*, and Greek *kybernán*. *Kybernology* (*kybernán* + *o* + *logy*) is the Greek name of *Bestuurskunde*, *Bestuurswetenschap*, and *Bestuurswetenschappen*, the landmark of the new BOK, a newcomer among the members of the community of sciences. Actually, the reconstruction of the fruit of the landing of *Bestuurskunde*, *Bestuurswetenschap* and *Bestuurswetenschappen* to the Indonesia ground, using the Universal Declaration of Human Rights approach to societal phenomena, resulting in BOK called *Kybernology* with higher academic degree

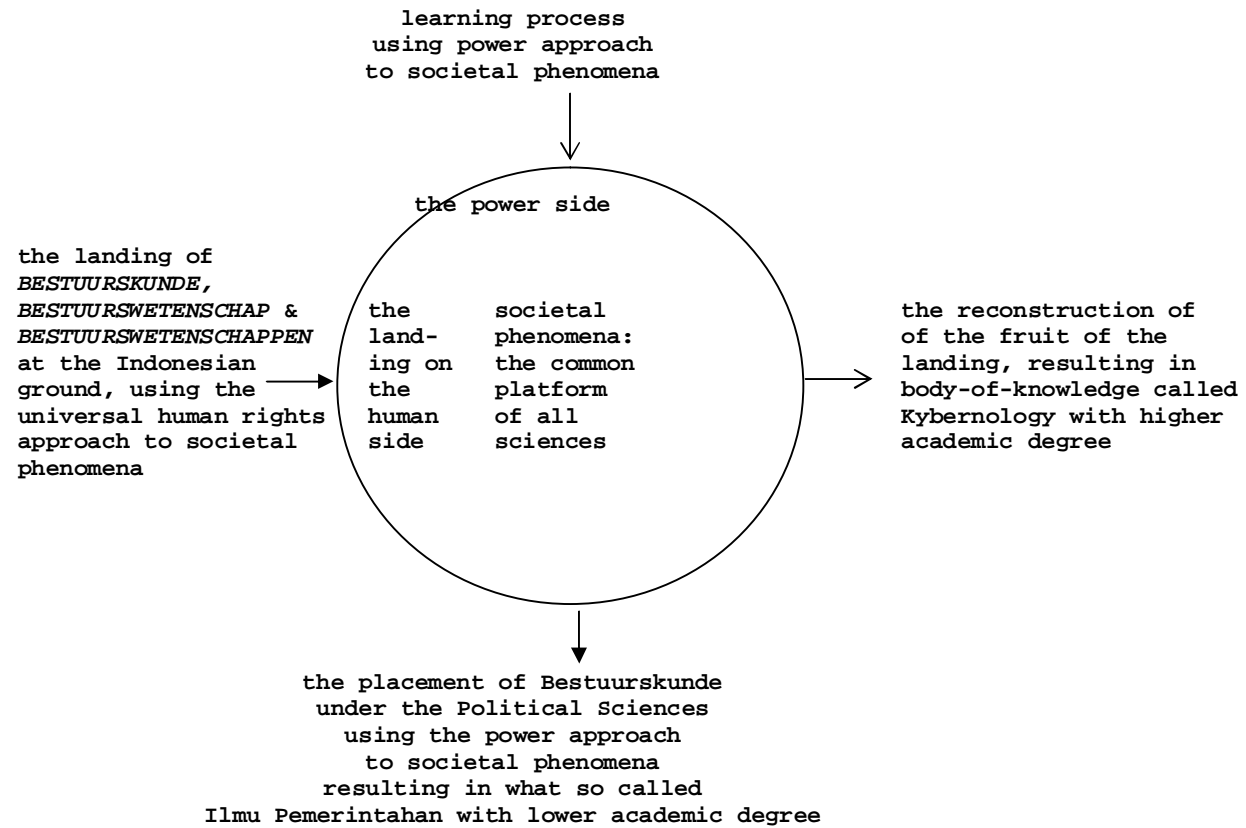


Figure 1 Two Ways of Approaching To Societal Phenomena
Resulting in Different Body-Of-Knowledge

As a product of scientific enterprise, so to say, Kybernology was launched by The Institute of Governmental Sciences (Institut Ilmu Pemerintahan) on May 22nd, 2003 in Jakarta. The Greek word *kybernan* came into my mind on May 8th, 2000, inspired by my team teaching Mr Ernan Arno Amsari (UNPAD) in one of his lectures on 1996. The Science Tree of Kybernology, comprising all field of studies involved in the postgraduate study curricula on Kybernology, was born in September 2002. The Hymn Kybernology composed in October 19th, 2002. The Steering Wheel was adopted as Kybernology's symbol or logo, on December 17th, 2002. The Indonesia Community of Kybernology declared in Jakarta on May 26th, 2004. Kybernology Foundation (Yayasan Kybernologi Indonesia, YKI) was founded on December 23rd, 2006, and finally the Kybernology Code of Ethics was adopted on December 11th, 2009, in the occasion of the third birthday celebration of YKI and the First Homecoming Reunion of Kybernology Alumni.

Through learning process of postgraduate programs at IPDN, some other universities, and scientific discussions held by many institutions, Kybernology developed into coherent and complete BOK, ontology, epistemology, and axiology. Since 1996, higher learning institutions having Kybernology as core curriculum offered Master's and 2000 on offered PhD degree to the public. Padjadjaran University (UNPAD) in Bandung for example had produced approximately 100 PhD holders majoring in Kybernology and more than 600 of Master's graduation. Islamic University of Riau at Pekanbaru since 2005 opened Master's Program on Kybernology.

Now, let 's see how *Bestuurskunde* and *Bestuurswetenschap* theory and practice in Indonesia pull from power sphere back to its social, proper place, as the science which leads human effort to gain the highest Good of life without abusing the right of others. The highest good comprising all things fulfilling the universal human rights, then declared by the United Nations, and reconstructs its BOK. Main requirements have been developed to create the scientific qualities of Kybernology.

2. THE APPROACHES

Approaching is the way of aim at a focus of interest, using theories as tool of analyses and relevant techniques of existing disciplines of science as means to observation, from a certain angle comparing with the others'. See Figure 2.

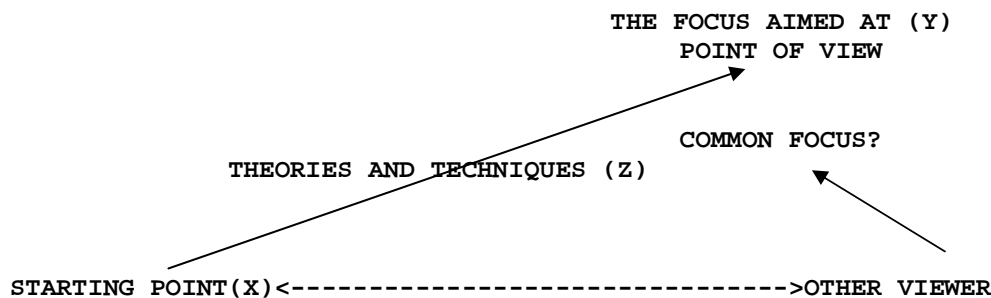


Figure 2 The Approaching

There are at least five approaches to an object of study. They are: (1) meta-disciplinary, (2) mono-disciplinary, (3) multi-disciplinary, (4) inter-disciplinary, and (5) cross-disciplinary approaches (Figure 3).

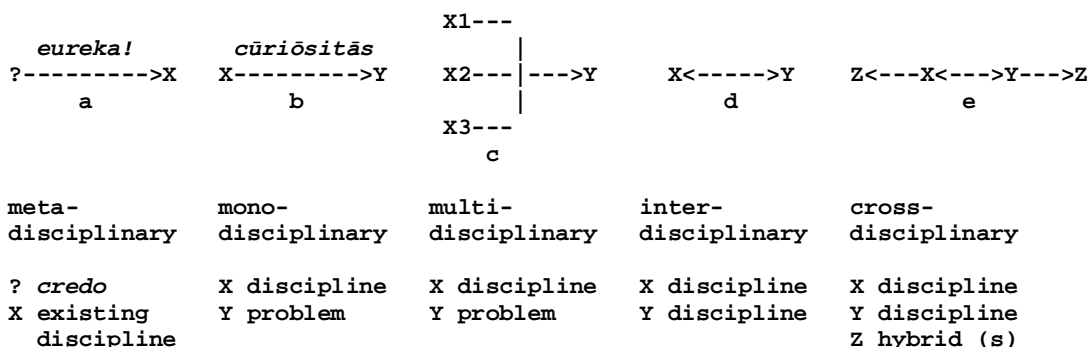


Figure 3 Various Way of Approaching

Getting closer to any object of which a BOK is not yet come into being, we use the **meta-disciplinary** approach. Before the BOK on the object called governance reconstruct and the building materials discovered, we use the meta-disciplinary approach to go into and observe empathically. Figure 4 shows what is the meta-disciplinary approach with its seven routes of thought and Figure 5 shows how it works.

Landing on the Indonesian ground, we realize that although they looked diverse (Ind. *bhinneka*), they have the inner and deeper religious experience from time to time. The religious experience, blend all the different communities into single feeling and sole national consciousness (Ind. *tunggal ika*). It seemed that other countries in the world, share the same religious experience. William James (1842-1910) in his famous classic on the psychology of religion, *The Varieties of Religious Experience* (1958) arrived at three hypotheses: “1. The subconscious self as intermediating between nature and the higher region. 2. The higher region, or ‘God.’ 3. He produces real effects in nature.” Half a century before William James, Mr L. P.

van de Spiegel in his *Schets* (op. cit., 1801), has identified two kinds of highest Good, the spiritual (*het verstandelijk Geluk*) included religion (*Godsdienst*), and the physical (*het lighaamelijk Geluk*). Religion included That is why before the BOK on the object called governance reconstruct and the building materials discovered, we use the **meta-disciplinary** approach to go closer and observe empathically. Figure 4 shows how the meta-disciplinary approach works in seven routes if thought.

Using meta-disciplinary approach the *object materia* of Kybernology, the community with its three subcultures, is discovered. Figure 4 shows that the *object materia* appears in the third step downward of the approaching. That is why, in the Science Tree (the classification of sciences) of University of Padjadjaran, we find the field of study of Kybernology (*Ilmu Pemerintahan*) as one of the members of Social Sciences.

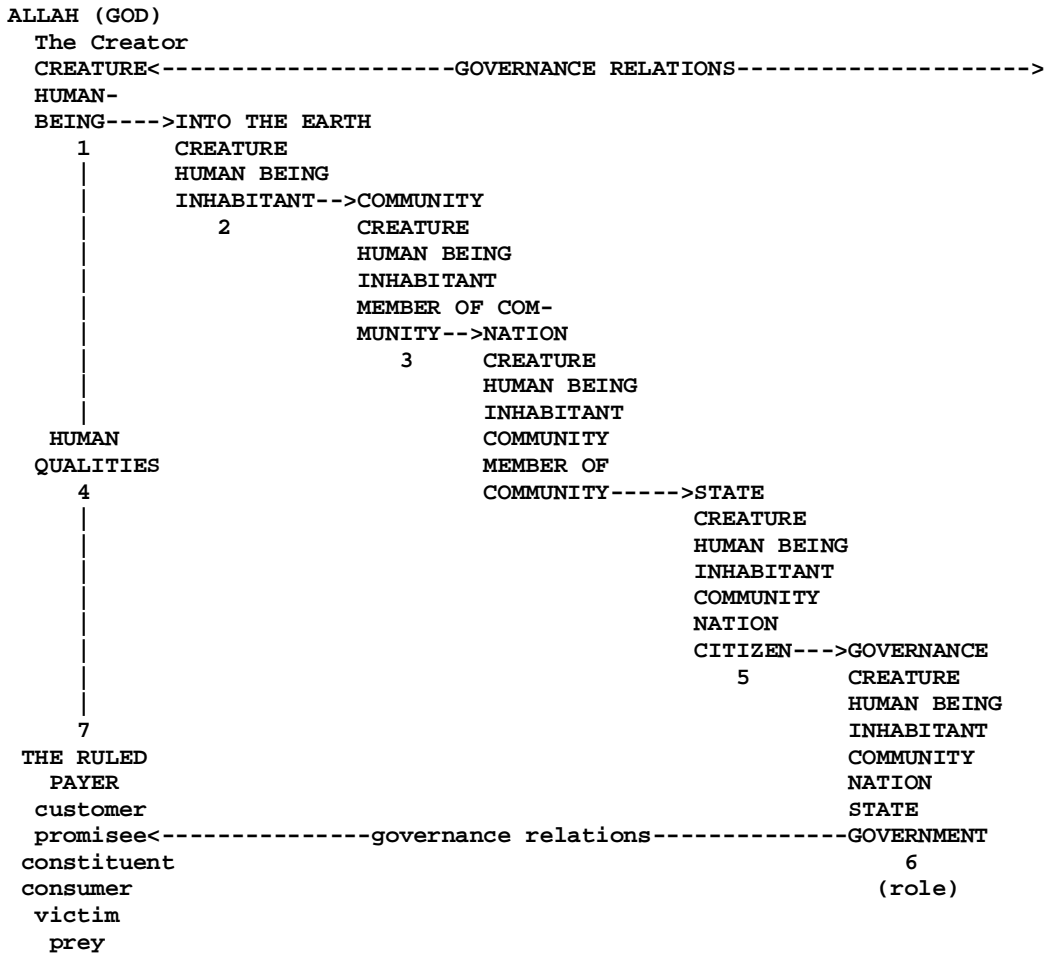


Figure 4 Metadiscipline Approach

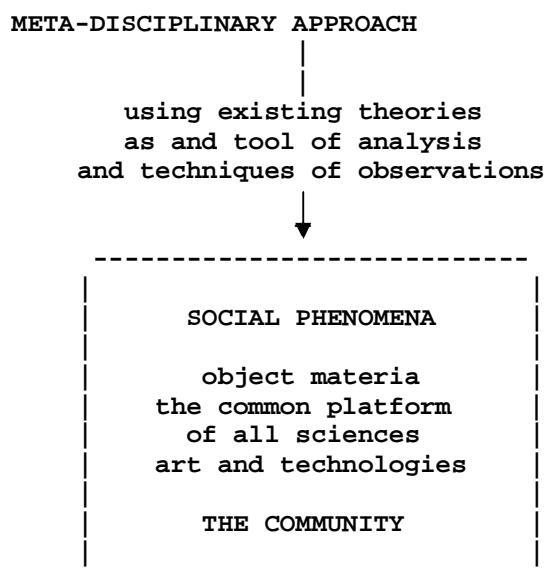


Figure 5 Meta-disciplinary Approach to Community

3. COMMUNITY, NOT THE STATE

At The First Instant, Observations Focused On Community, Not The State, As The *Object Material* Of The Study. I understand that every community is a cultural entity. It begins with families. The community is driven by three movers or subcultures. The first one is economic. We call this economic subculture (ESC). ESC is the fundamental culture of human being. Its main function, are to preserves and creates values. Basic needs of people that must be fulfilled to make human life sustainable consist of various kinds of values.

Values needed are products of exploitation, elaboration, reconstruction, and development of natural, human, and virtual resources. Of course, there is a natural mechanism to run the value systems and processes called the rule of the market, but now and then the haves groups are still dominant over those have-nots, so the rule is hard to enforce.

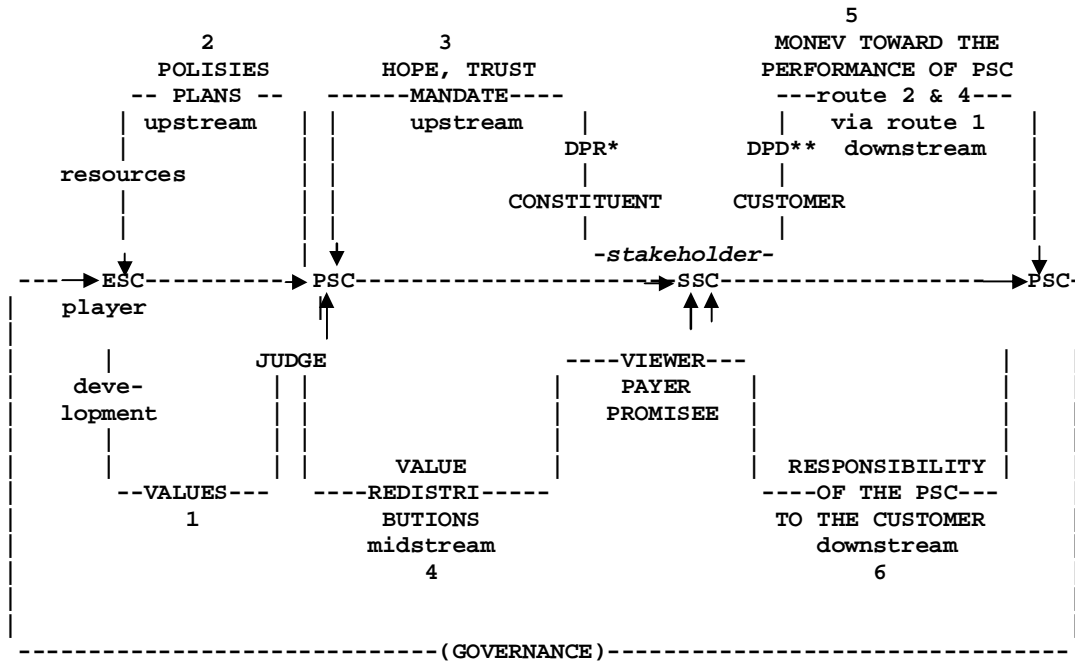
The ESC itself brings injustice since the value gained depends on the amount of resources possessed. The great the amount of resources owned, the higher is the value gained. The rich will be going on richer and richer while the poor become poorer and poorer. To overcome these ever-wider discrepancies and anticipate its negative impacts, people posses another subculture called power subculture (PSC). The actor of the PSC is the government (Ind. *pemerintah*). PSC, responsible for controlling the ownership and exploitation of resources, serving the customers, and adjusting value distributions among people. To make the PSC capable to function, for example to keep peace, enforce rule and implementing the law, some special values

charged into it. They are authority, force, coercion, violence, and sometimes it can punish by death sentence. Being charged with those values, the actor of PSC can arbitrarily do what Lord Acton once said “Power tends to corrupt, and absolute power corrupts absolutely.”

The building of PSC is going through political process, called election. Out of the election process, rise up two parties the paid and the payer. The elector pays with his or her vote (*vox populi*), so the candidate (the paid), get power to govern. Based on this transaction, the payer becomes a customer. Why elector elects the candidate? Not because the candidate has shown good performance on the position which fought for, but because the candidate promises something in the future. Here again rise two parties: the promisee and the promisor (promiser). The promisor promises something needed by the promisee to do when the candidate has been elected. In this case, as said above, the promisee becomes customer. How if the customer has no capability to gain the thing promised? He or she will be victimized. He or she becomes victim of the promisor's incapability. Without an effort for rescuing, the victim becomes prey for predators. That is why community pays strong attention in to control the building of PSC upward, and to control its actions overtime downward.

So far, the analysis shows that community gets various qualities, namely payer, promisee, customer, victim, and prey. Those complexes of qualities are called social subculture (SSC). How the community or the SSC controls the PSC upstream and downstream? It controls the PSC upstream (upward) with its political quality called constituent, by constitutes the future of their own: making laws, policies, and plans development programs for progress. Then, the SSC controls the PSC downstream by monitoring and evaluating the value distribution among people, and ask the PSC for responsibility. The process is resulting in day-by-day political culture of the nation and the political attitude of the people toward next election. Analogizing with soccer or football competition, the role of each subculture of the community seems subsequently like players, referee (judges), and the ticket payers--the viewers. Figure 6 shows how every subculture interacts one to each other. Let us define the interaction between subcultures as **governance** (Ind. *pemerintahan*).

If the governance succeeded in delivering such performance, notably the sustainable increasing of the level of life of the whole people, as ECOSOC of the United Nations declared in 1956, “to improve the economic, social and cultural conditions of communities, to integrate those communities into the life of the nation, and to enable them to contribute fully to national progress,” then we say, the governance is good, the community lives in the state of **good governance**. Otherwise, bad governance.



*DPR Dewan Perwakilan Rakyat, the representatives of the people
 **DPD Dewan Perwakilan Daerah, the representatives of the local governance

Figure 6 The Governance

The question now is how to make the interactions of subcultures capable of producing good performance? There are five conditions to take into account or *conditio sine qua non*, namely:

- 1) Conformity. It is the degree of time and direction precision, and synchronization of the three subcultures aiming at the common and committed goal, so the success of one subculture didn't destroyed by the performance of the other. In another words, we say it coordination. The more independent the relations between subcultures, the more important is the coordination
- 2) Balance. It is the degree of bargaining power of one subculture in relations to the others, so each subculture gets equal opportunity and ability to bargains, that resulting in mutual consent and common commitment
- 3) Harmony. That is the degree of compatibility of attitude and behavior between different subcultures, to create and maintain maximum organizational or national achievement, by the controlling of or adjust to the least "out of tune," discordant or indecent of behavior between parties as early as possible
- 4) Dynamics or motion. That is the degree of accuracy and acceleration of adaptability to changes of the three subcultures, as to realize positive fluent

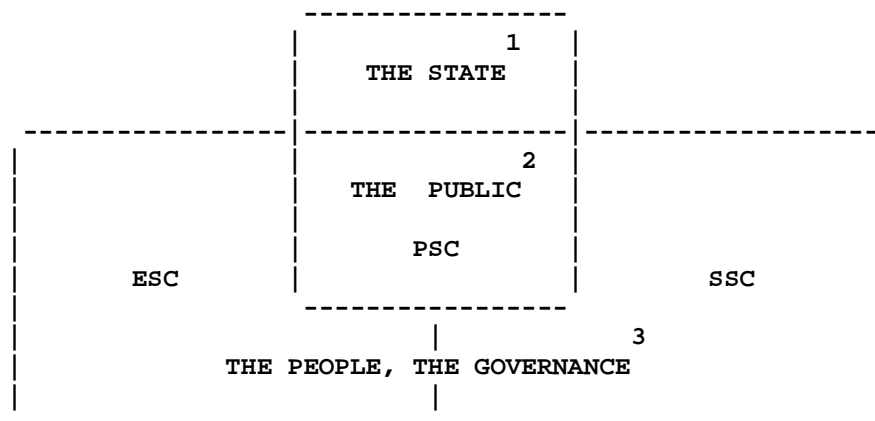
- community movement from state of homeostasis to heterostasis and vice versa, and to make a progress of one subculture resulting in a progress of the others
- 5) Sustainability. That is the degree of self-propelling growth and development of the community on a long term basis.

In line with the above analysis, the object of study of Kybernology is governance rather than government.

4. BALANCING POWER BY LANDING AT THE HUMAN SIDE OF GOVERNANCE

Figure 1 shows that actually, a social phenomenon is a many sided common platform. Two of them are power and human side. Journals, NGOs, academic associations and mass media reported that, since half a century ago, throughout the country, internal disintegration of the nation was always handled with power policy implementation, while external economic and political domination was faced with pragmatic international diplomacy displaying somewhat weak, half-hearted actions. The man in power didn't care of what happened to the people after what they called the rule enforcement, since they acted no rule of law but rule of order, rhetoric or rule of thumb.

Bryant and White in *Managing Development in the Third World* (1982) stated that "the only way to have a built-in mechanism for correcting grossly unfair allocable decisions is for people to have influence They can then use that influence to raise their issues onto the agenda." Raising the peoples' influence onto the policy agenda means feedback into the governance system. "No development message should be delivered without an effort to tap the feedback which it immediately generated. Positive feedback is easy; the message can then be expanded into further detail, leading to decision for action. Negative feedback is however more permanently important to any living creature or group. When you put out your hand and touch a burning hot surface, negative feedback makes you snatch your hand away. If a villager is not free to express similar mental recoil from any proposal for an improved practice or a group activity, he has lost a valuable safeguard in his life as a social unit," said Evelyn Wood, "Project into Pattern," Kurukshetra, October 1962. (See Jnanabrota Bhattacharyya, *Administrative Organisation for Development* (1972).



In Indonesia context:

1---->2 public service, state's authorities

1---->3 civil service, state obligatory duties

Figure 7 Governance Relations

In Indonesia context, landing on the human side of community claims full implementation of the Indonesia's 1945 constitution, in line with the 1949 Universal Declaration of Human Rights, responding to the uncertain future of the world. Many post World War II events shows that besides disaster caused by war and regional political conflicts, natural and environmental disaster caused by negligent attitude of the state and mismanagement of development policy and program, as Frederick C. Cuny pointed out in his *Disaster and Development* (1983), proliferating and spreading bitter and bitter. The constitution proclaimed that one of the fundamental mission of the state is to protect (*melindungi*) all peoples from disasters and turbulences. That is why we make the difference between public and civil services. **Public service** on one hand is the service formulated by public choice, adopted through public policy process with the consent of the people's representatives, and provided by the government under the state authority. Public service is the state authority. **Civil service** on the other hand, is the service provided by the state as the state's obligation or duty, the obligatory implementation of the constitution and fulfillment of the Universal Declaration of Human Rights declared by the United Nations, of which Indonesia is a Member State (Figure 9).

Based on the above argumentation, we tried to balance the power approach to governance with human approach since twenty years ago, as shown in Figure 1. Subsequently we put human side not in the realm of power, not concentric with the state, but interfacing with it (Figure 7). Using the human approach to governance, we arrive at *object forma* of Kybernology.

5. HOW TO IDENTIFY THE *OBJECT FORMA*

Figure 8 shows the steps to arrive at the *object forma* of Kybernology. It begins with using meta-disciplinary approach to social phenomena, the community with governance working in it. Landing on the human side of governance, basic assumptions have to be found. Walter Lippmann's *Public Philosophy* (1956) tells us about it. Quoting Lippmann: "And beyond this practical common law for commercial intercourse, the Roman jurists recognized that in theory there was also natural law, the *ius naturale*, which is 'the law imposed on mankind by common human nature, that is, by reason in response to human needs and instincts'," we arrived at the human needs and response to human instincts, as the fundamental, upon which the BOK of Kybernology is founded. Thus Kybernology is closer to economics rather to politics.

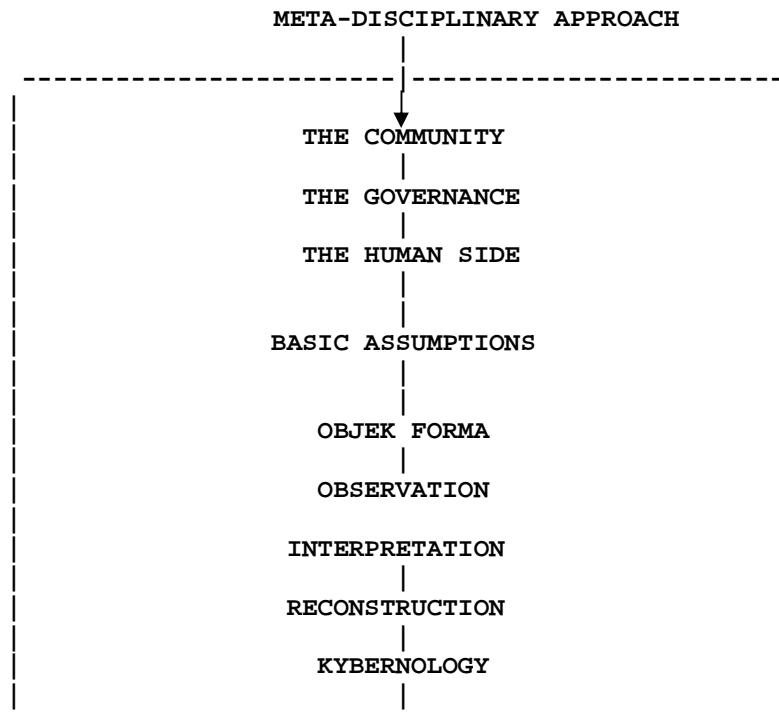


Figure 8 The Ladder of Object Forma Identification Process

The human needs and response to human instincts is the starting point for mono-disciplinary approach to further development of Kybernology (see Figure 3 and Figure 8). Observing facts and analyzing data, laying down the baby-brink and making-up cinder-block, then building concepts piece by piece, constructing theories, one by one, just like the kindergarten morning song: "Little drops of water, little grains of sand, make the mighty ocean and the pleasant land."

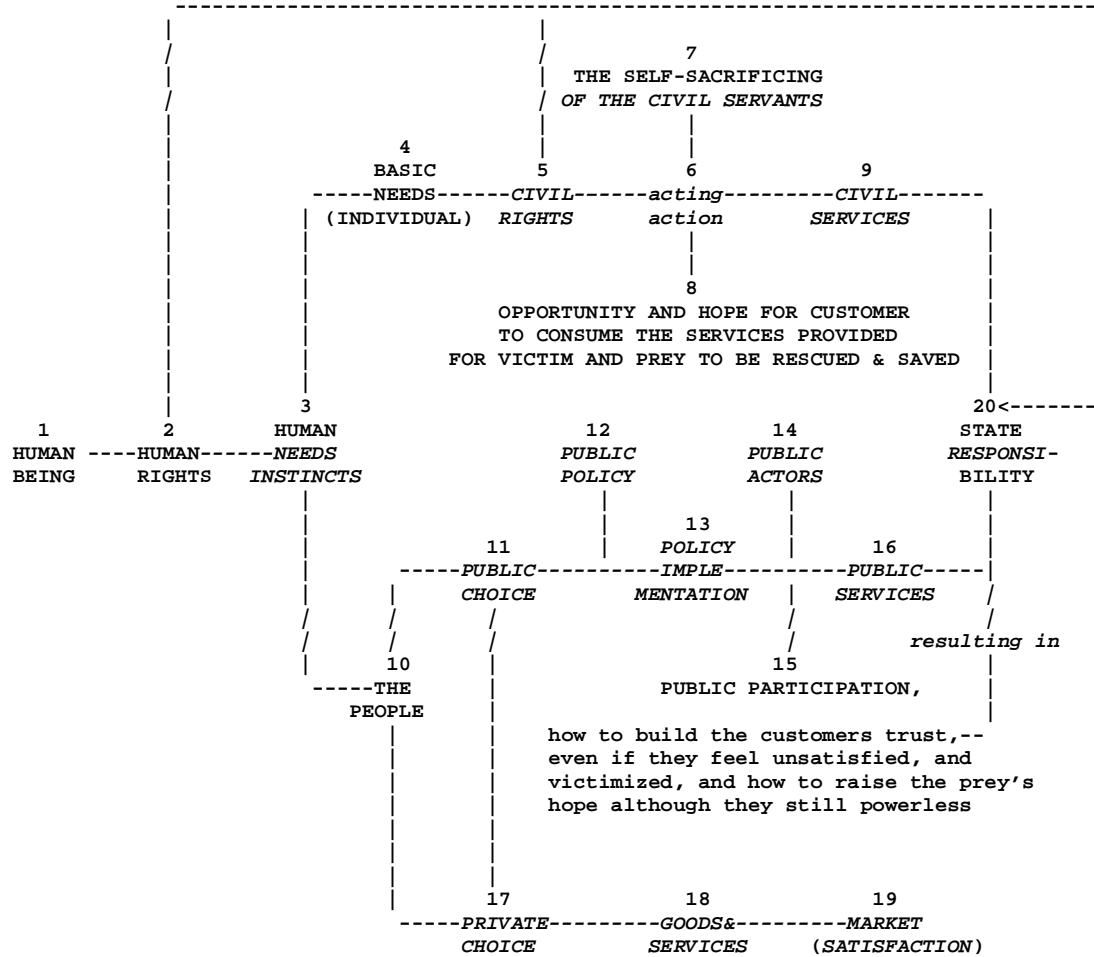


Figure 9 The Choices

6. RESEARCH METHOD

We have identified three sides of Philosophy of Science of Kybernology. The three sides, subsequently mentioned, are: Research Methodology of Kybernology, Methodology of Science of Kybernology, and Methodology of Kybernological Education. Figure 10 shows the relations of the three methodologies. The BOK has nine functions. The higher the degree of the BOK's capability to function, the higher the scientific quality of the BOK. Of course, the capability of the BOK depends on the quality of its building materials and constructions, rendered by Research Methodology, while the phenomena observed by research are products of both natural and human behavior. The domain of each methodology is shown in Figure 11.

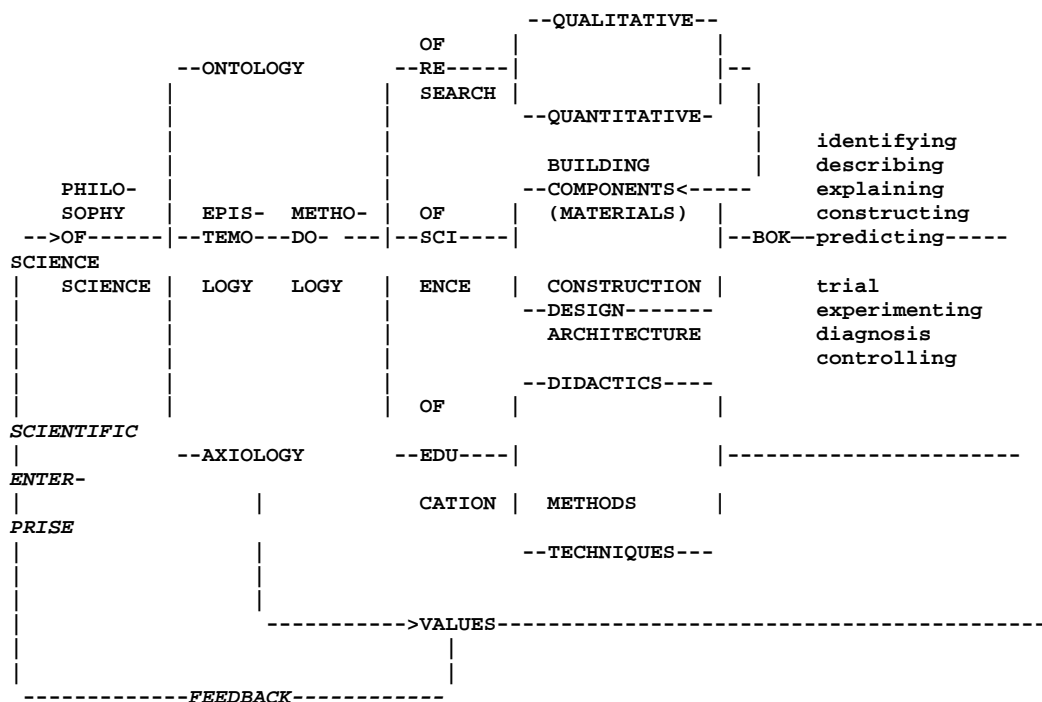


Figure 10 The Philosophy of Science of Kybernology

Is there any special domain of kybernological research? Landing on the human side of community phenomena to find the *object materia* and *object forma*, so to say, is the landing on macro level. Landing at the micro level, is hidden in the heart of the question: “What is the research population,” more specific, “population of what quality the researchers observe” (if quantitative research). “What focus the research aims at (if qualitative research), and “by whose frame-of-references (FOR) is the information informs?” Any research activity is not landing at the kybernological field, unless the research procedures go in line with the right respond to the three questions said above.

- 1) The focus of research aims at the human fights, human basic needs and instincts, not at political interests

- 2) The population, informant, creature or nature observed seen by the researcher as patient, disabled, victim, prey, the hopeless, the spoiled, etc, while the researcher plays the role not as the drugstore, drug seller, or apothecary, but as physician, public health specialist, preacher, or doctor
- 3) All information should be informed using the FOR of the respondent or informant, not the FOR of the researcher or higher officer. The researcher stays like *tabula rasa*, written “arbitrarily” by the informants or respondents. The researcher goes on collecting, analyzing, interpreting, constructing, and let the result be used as inputs in the policy process right away!

Then the research methods produce data, scores, concepts, constructs, variables, hypotheses, Verstehen, and theories. They are building material material for BOK construction respectively.

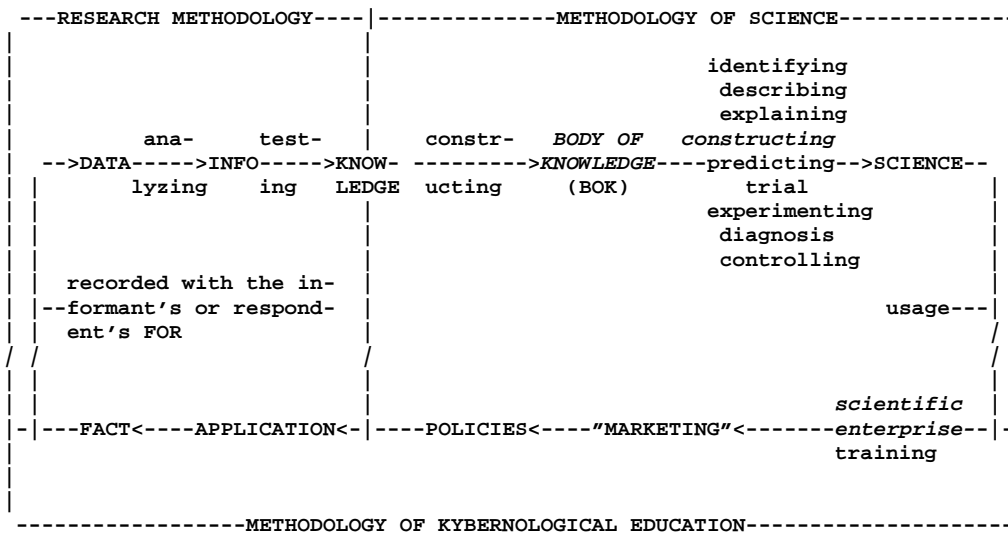
7. METHODOLOGY OF SCIENCE OF KYBERNOLOGY

The title of this section is somewhat confusing. A. S. Chalmers in his *What is This Thing Called Science* (1982) defined science as methodology. So it is better to say, Kybernology as Methodology. The Methodology of Science of Kybernology is the Kybernology itself, as shown in Figure 11. The Metodology of Science of Kybernology selects the relevant building material needed, and identify workable techniques for constructing the BOK. The next step is to put the BOK into action. The figure shows nine BOK’s functions to be tested to know the degree of the BOK’s scientific quality. The Kybernology as Metodologi published in Indonesia entitled *Kybernologi dan Metodologi: Metodologi Ilmu Pemerintahan* (2010).

8. BODY-OF-KNOWLEDGE (BOK)

The role of language in BOK processing is very important. It makes the BOK “tangible” in written, or like physical building in virtual image form. The process of BOK building is seen along the process of writing a report, a book, and the like. Actually, the **systematic outline** of teaching material of Kybernology (Ind. *Garis-Garis Besar Program Pembelajaran, GBPP*), is the virtual image of its BOK.

The creation of virtual image of the BOK of Kybernologi is based on Will Durant’s *The Story of Philosophy* (1956) that, “Every science begins as philosophy and ends as art, it arises in hypothesis and flows into achievement. Philosophy is a hypothetical interpretation of the unknown (as in metaphysics), or of the inexactly known (as in ethics or political philosophy); it is the front trench in the siege of truth. Science is the captured territory; and behind it are those secure regions in which knowledge and art build our imperfect and marvelous world.” See Figure 12.



INFO information
FOR frame-of-reference

Figure 11 Methodologies of Kybernology

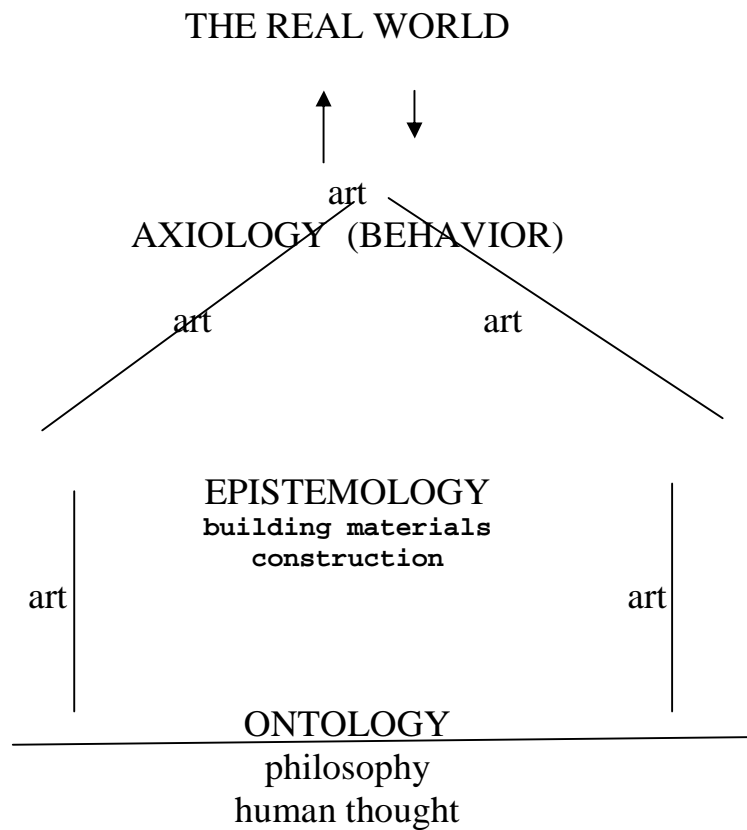


Figure 12 Virtual Image of BOK of Kybernology

The systematic outline of teaching materials of Kybernology as follows

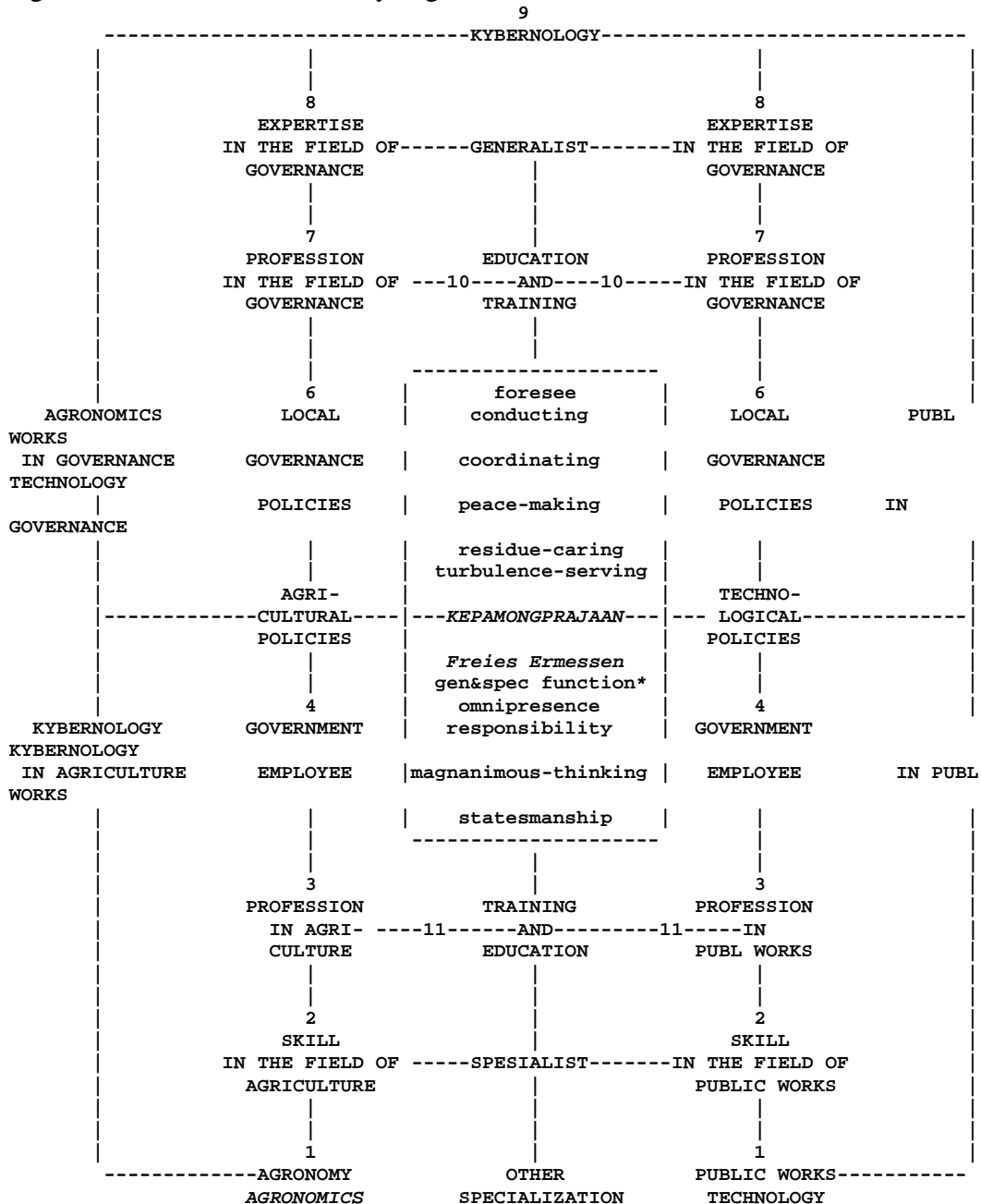
- 1) Ontology (landing on human side and human environment of social phenomena)
- 2) Epistemology (theories on Human Rights and basic human needs)
 - a. Needs Theories (preluded by the Declaration of Human Rights)
 - b. Theories of Governance (the Human being, the people, the communities, the subcultures)
 - c. Theories of Public and Civil Services (protecting Human Rights and fulfilling human basic needs)
 - d. Performance Theories (incl. Good Governance, Theories of Resources, Theories of Performance Management)
 - e. Theories of Values (Theories of Quality-Value-Norms Complexes, Organization Culture and Work Culture)
 - f. Methodology (application of theories into methodologies, and methodologies into practices)
- 3) Axiology
 - a. Kepamongprajaan (an Indonesian term consisting 12 basic values of governance, incl. Foreseeing, Conducting, Coordinating, Peace-making, Residue-caring, Turbulence-serving, Freies Ermessen, Generalist-Specialist Function, Responsibility, Magnanimous-thinking, Omnipresence, and Distinguished-statesmanship), concluding with The Code of Ethics
 - b. Policy in Governance (transforming Kepamongprajaan into policies)
 - c. Governance Management (the Implementation of Policies of Kepamongprajaan)
 - d. Art and Techniques in Governance (the operational process of the implementation, the concrete transaction between government and the customers---the people)
 - e. Ethics in Governance (Rule Of Conduct of all actors of governance)
 - f. Governance Reform (Reforming Governance)

Curriculum assessment of any study program of learning institution of Kybernology should be deducted from the above stated outline to make the curriculum system coherent with clear relationships between different teaching subjects and different background of teachers (instructors, trainers).

9. TEACHING METHODOLOGY

Teaching methodology of Kybernology is ultimately inspired by G. A. van Poelje's *Algemene Inleiding tot de Bestuurskunde* (1953, p. 1) that, ". . . . allerlei wetenschappen, die betrekking hebben op het een of ander onderdeel van het particuliere bedrijfsbeheer, ten slotte uitmonden in een algemene, alles overhuvende bedrijfsleer on dat deze leer van het beheren der particuliere bedrijven althans ten dele voorwaarde is voor het bestaan der daar boven

uitrijzende wetenschap van het openbaar bestuur.” The quoted passage from van Poelje indicates that when some special knowledge producing special jobs or professions, Agronomics for example, enter the policy-making process in governance, they need a general or super-ordinate knowledge, in this case Kybernology The Kybernological point of view on the field of Agronomics, using cross-disciplinary approach, resulted in what may called Kybernology in Agriculture, and on the contrary, Agronomics in Governance



gen&spec function: *generalist & specialist function*

Figure 13 Teaching Methodology of Kybernology

Teaching didactics and methods is also taken into account. Firstly, didactics based on Philosophy of Kybernology in relations with methods based on academic degree. See Figure 14.

		METHODS OF EDUCATION		
		college	master's	doctoral
DIDACTICS	Axiology (The Fruit)	X X X	X X	X
	Epistemology (The Trunk)	X X	X X	X X
	Ontology (The Root)	X	X X	X X X

Figure 14 Philosophy and Academic Degree

Secondly, didactics based on the academic degree offered in relations with methods of learning (ordinal, nominal zig-zag, and interval. See Figure 15.

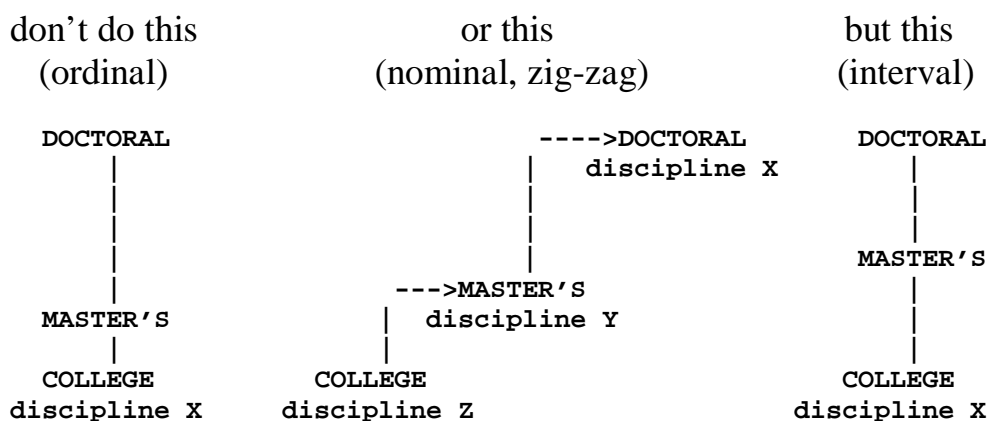


Figure 15 Scale of Didactics and Methods of Learning

10. INTER-BOK RELATIONS

Like human community, scientific community comprising also many members. The Bodies-Of-Knowledge (BsOK). The relationships between members can be drawn as shown by Figure 16. The dynamic of any relations depends on two movers, the centripetal and the centrifugal. The BOK relations just like marriage between two couples, they produces hybrids, the off-springs, while the two movers are love.

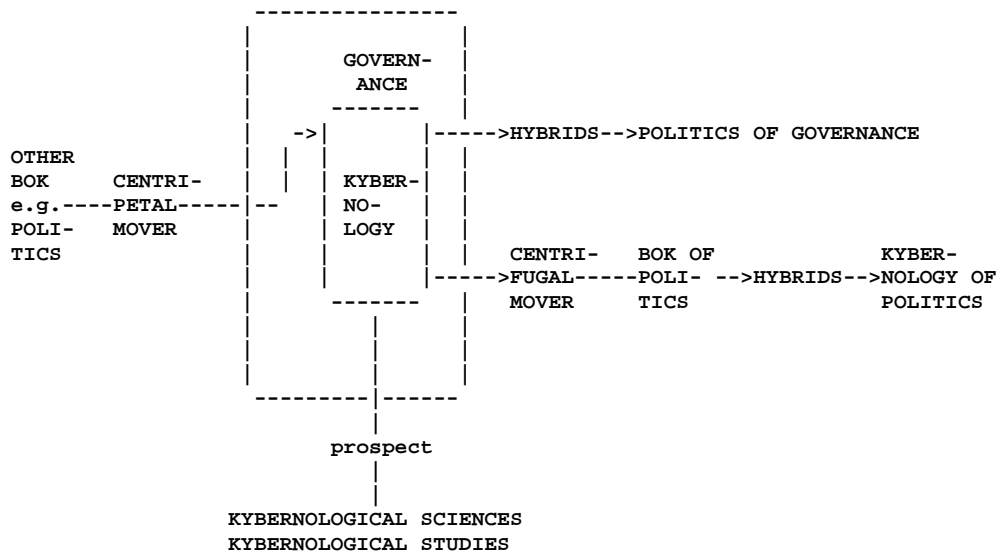


Figure 16 Inter-BOK Relations

NOTES

- Bhattacharyya, J., 1972, *Administrative Organisation for Development*, IAS, Brussels
- Bryant, Coralie and White, Louise G., 1982, *Managing Development In The Third World*, Westview Press, Boulder, Colorado
- Chalmers, A. F., 1982, *What Is This Thing Called Science?*, University of Queensland Press Queensland
- Cuny, Frederick C., 1983, *Disasters and Development*, Oxford University Press, New York, Oxford
- Durant, Will, 1956, *The Story of Philosophy*, The Pocket Library, New York
- James, William, 1958, *The Varieties of Religious Experience*, The New American Library, New York
- Lippmann, Walter, 1956, *The Public Philosophy*, The New American Library, New York
- Poelje, G. A. van, 1953, *Algemene Inleiding tot de Bestuurskunde*, N. Samsom N. V., Alphen aan den Rijn
- Riggs, Fred W. (ed.), 1971, *Frontiers of Development Administrations*, Duke University Press, Durham, NC