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# *Indeterminacy in Communication*

## *—An exploration from Luhmann's perspective—*

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## **1 INTRODUCTION**

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### **1.1 Background**

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#### **A STRATEGIC RETREAT?**

Conservative shift from “communicative language ability” (Bachman 1990) to “language ability” and “Target Language in Use” (Bachman and Palmer 1996)

#### **TESTING LANGUAGE, NOT COMMUNICATION?**

'Oh, so you're not interested in communication, only language.' -- This comment was challenging in view of the claims to a communicative orientation of current language testing practice (McNamara 1996, p. 83)

#### **WHOSE PERFORMANCE?**

[C]learly a performance is not a simple projection of what is in the head of the candidate, even if that display is mediated by the candidate's strategies for dealing with the interactional context in which it is to be achieved. (McNamara 1997, pp. 453)

#### **WHY EXACTLY IS IT SO DIFFICULT TO TEST COMMUNICATION?**

Need for a philosophical inquiry

## 1.2 Definition

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LINGUISTIC COMMUNICATION ALONE

WRITING AND READING EXCLUDED (cf. Derrida on writing)

INTERACTION (OF SPEAKING AND LISTENING)

## 1.3 Review

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HYMES' PROPHETIC STATEMENT

"Here the performance of a person is *not* identical with a behavioral record, or with the imperfect or partial realization of *individual competence*. It takes into account the *interaction between competence* (knowledge, ability for use), the *competence of others*, and the *cybernetic and emergent properties of events* themselves. A performance, as an event, may have properties (patterns and dynamics) *not reducible to terms of individual or standardized competence*." (Hymes 1972 p.283; emphasis added)

CANALE ON THE NATURE OF COMMUNICATION

Communication

- (a) is a form of social interaction, and is therefore normally acquired and used in social interaction;
- (b) involves a high degree of unpredictability and creativity in form and message;
- (c) takes place in discourse and sociocultural contexts which provide constraints on appropriate language use and also clues as to correct interpretations of utterances;

...

- (g) is judged as successful or not on the basis of actual outcomes. (For example, communication could be judged successful in the case of a non-native English speaker who was trying to find the train station in Toronto, uttered 'How to go train' to a passer-by, and was given directions to the train station.)

BACHMAN QUOTING KRAMSCH

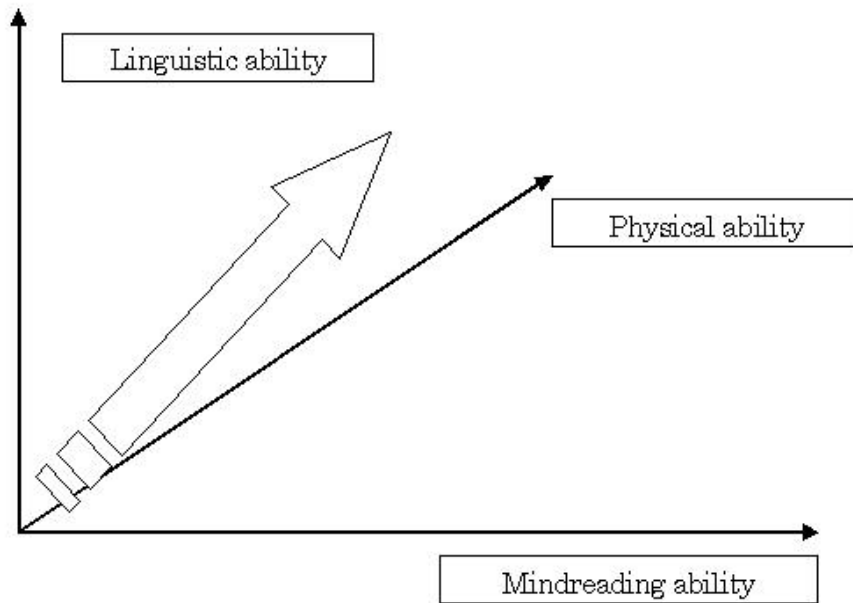
"Interaction always entails negotiating intended meanings, i.e., adjusting one's speech to the effect one intends to have on the listener. It entails anticipating the listener's response and possible misunderstandings, clarifying one's own and the other's intentions and arriving at the closest possible match between intended, perceived, and anticipated meanings." (Kramsch 1986: 367 *quoted by Bachman 1990*)

CRITICISM BY McNAMARA

[I] will argue that for Bachman the term interaction, even when it is referring to social interaction, refers exclusively to cognitive activity on the part of the candidate. (McNamara 1997 p. 449)

INTRODUCING THEORY OF MIND AND RELEVANCE THEORY

Yanase's "Three dimensional understanding of communicative language ability"



#### DAVIDSON'S RADICAL THEORY OF COMMUNICATION

"What must be shared for communication to succeed is the passing theory."

"Linguistic ability is the ability to converge on a passing theory from time to time."

"I conclude that there is no such thing as a language, not if a language is anything like what many philosophers and linguists have supposed."

#### ARENDT ON SPEECH IN PUBLIC SPHERE

Speech as *power* by revealing who the speaker is

Unpredictability of speech in public sphere

#### FROM INDIVIDUAL TO INTERACTIVE AND SOCIAL

INDIVIDUAL	INTERACTIVE	SOCIAL
Chomsky		
Hymes		
Canale and Swain		
Widdowson		
Taylor		
Bachman		
Theory of Mind		
Relevance Theory		
	Davidson	
		Arendt
Luhmann		

#### 1.4 SIGNIFICANCE

Fundamental issue in Language Testing, if it purports to be about linguistic communication

## 1.5 Hypothesis

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### LUHMANN'S APPROACH

Luhmann's sociological approach, which is radically different from 'individual psychology,' will reveal fundamental issues of communication in clear light.

## 1.6 Method

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Reading Luhmann's *Social Systems*, one of the most important works of his.

## 1.7 Problems and Research Questions

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### PROBLEMS

#### CONDUIT METAPHOR IN THE CODE MODEL

Conduit metaphor gives us the illusion of complete transmission or transfer.

#### SPEAKER MEANING IN STANDARD PRAGMATICS

Speaker meaning is inferred, but it is not the entire picture of the meaning (eg, irony or weak implicature.)

#### WEAK COMMUNICATION IN RELEVANCE THEORY

"With weaker forms of communication, the communicator can merely expect to steer the thoughts of the audience in a certain direction. Often, in human interaction, weak communication is found sufficient or even preferable to the stronger forms." (Sperber and Wilson 1995, pp. 59-60)

#### PROBLEM OF INTRODUCING RESPONSE IN AUSTIN'S THEORY

Perlocutionary act as a problematic notion in linguistics

### RESEARCH QUESTIONS

#### FUNDAMENTAL CHANGE IN ASSUMPTION NEEDED?

*Should difference, not agreement, be assumed in communication?*

(cf. Postmodern view of language use)

*Should indeterminacy, not determinacy, be assumed in communication?*

(cf. Quine on indeterminacy of translation)

*Why should difference and indeterminacy be assumed in communication?*

**Luhmann:**

**(1) The three-part unity in communication**

**(2) Self-reference and double contingency**

**(3) System/environment**

## **2 LUHMANN'S THEORY OF COMMUNICATION**

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### **2.1 The three-part unity in communication**

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#### **FORMULAIC REPRESENTATIONS OF COMMUNICATION**

##### **ONE-PART VIEW**

Code Model : (intentionality →) linguisticality = communication

##### **TWO-PART VIEW**

Pragmatics : literal meaning → speaker meaning = communication

Burge : comprehension + interpretation = understanding

##### **THREE-PART VIEW**

Austin : locutionary act / illocutionary act // perlocutionary act

Luhmann: (information ↔ announcement / utterance) ↔ understanding

#### **INFORMATION, ANNOUNCEMENT AND UNDERSTANDING**

*Information, announcement and understanding roughly correspond to locutionary act, illocutionary act and perlocutionary act.*

Kommunikation kommt nur zustande, wenn diese zuletzt genannte Differenz [=Differenz von Information und Mitteilungsverhalten] beobachtet, zugemutet, verstanden und der Wahl des Anschlußverhaltens zu Grunde gelegt wird. Dabei schließt Verstehen mehr oder weniger weitgehende Mißverständnisse als normal ein; aber es wird sich, wie wir sehen werden, um kontrollierbare und korrigierbare Mißständnisse handeln.

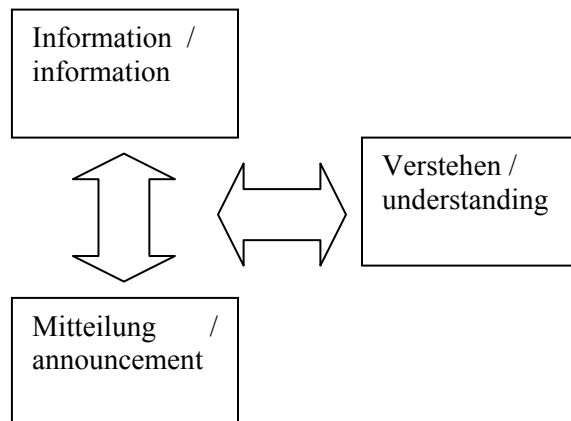
Kommunikation wird also im weiteren als dreistellige Einheit behandelt. Wir gehen davon aus, daß drei Selektionen zur Synthese gebracht werden müssen, damit

Kommunikation als emergentes Geschehen zussandekommt. (Luhmann 1984, p. 196)

Communication emerges only if this last difference [=difference between information and announcement] is observed, expected, understood, and used as the basis for connecting with further behaviors. Thus understanding normally includes more or less extensive misunderstandings; but these are always, as we shall see, misunderstandings that can be controlled and corrected.

From now on we will treat communication as a three-part unity. We will begin from the fact that these three selections must be synthesized in order for communication to appear as an emergent occurrence. (Luhmann 1995, pp. 141-2)

NB. *Utterance* is a translation word for *Mitteilung* in the original text. However, to avoid the ambiguity of “utterance” (*Mitteilung* and speech production), I prefer *announcement*, as some English speaking scholars translate.



Wir können mithin Intentionalität und Sprachlichkeit nicht zur Definition des Kommunikationsbegriffs verwenden. (p. 209)

Thus we cannot use intentionality and linguisticity to define the concept of communication. (p. 151)

## 2.2 Self-reference and Double contingency

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### 2.2.1 Self-reference

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#### SELECTION THROUGH SELF-REFERENCE

Information, announcement and understanding are selected respectively through self-reference.

#### INFORMATION IS NOT TRANSMITTED, TRANSFERRED OR COPIED

On receiving the so-called “input,” the listener *selects* information, for she only knows what she already knew. She must decide and select what the information is by referring to herself (self-reference), for that is the only resource she has. She has to identify the information as something she already knew (or simply “unknown.”) Even when she hears a definition of a new word, the definition, words that are used in it, must be processed by her self-reference. Even at the level of “input” which has been thought of as no-problematic process of word recognition, self-reference is involved and as a result the listener may only listen “as she can” or “as she wants.”

#### IDENTIFYING ANNOUNCEMENT THROUGH SELF-REFERENCE

At the level of announcement, where the listener decides what the information is about (speaker meaning / implicature / illocutionary act), she must use self-reference because this is a process of inference, and the inference is based on her knowledge (about the speaker and the world). Her inference is always enclosed in herself (a *psychic system*, as Luhmann calls it: to be explained later). This explains how misunderstanding is part of our life, for the listener may not necessarily interpret as the speaker means; the listener can only interpret as she can.

#### COMMUNICATION IS BASED ON THE THREE-PART UNITY

The information and the announcement, each of which the listener selects and decides, may sometimes be not in complete agreement. Yet, the listener has to decide how she understands the “input” (for the lack of a better word), for otherwise she cannot respond and communication stops (or rather she may be taken as sending a signal by deliberate silence, which she never means). Understanding, therefore, is a settlement in the difference in the information and announcement. Understanding is also self-referential, for the listener has no other resource.

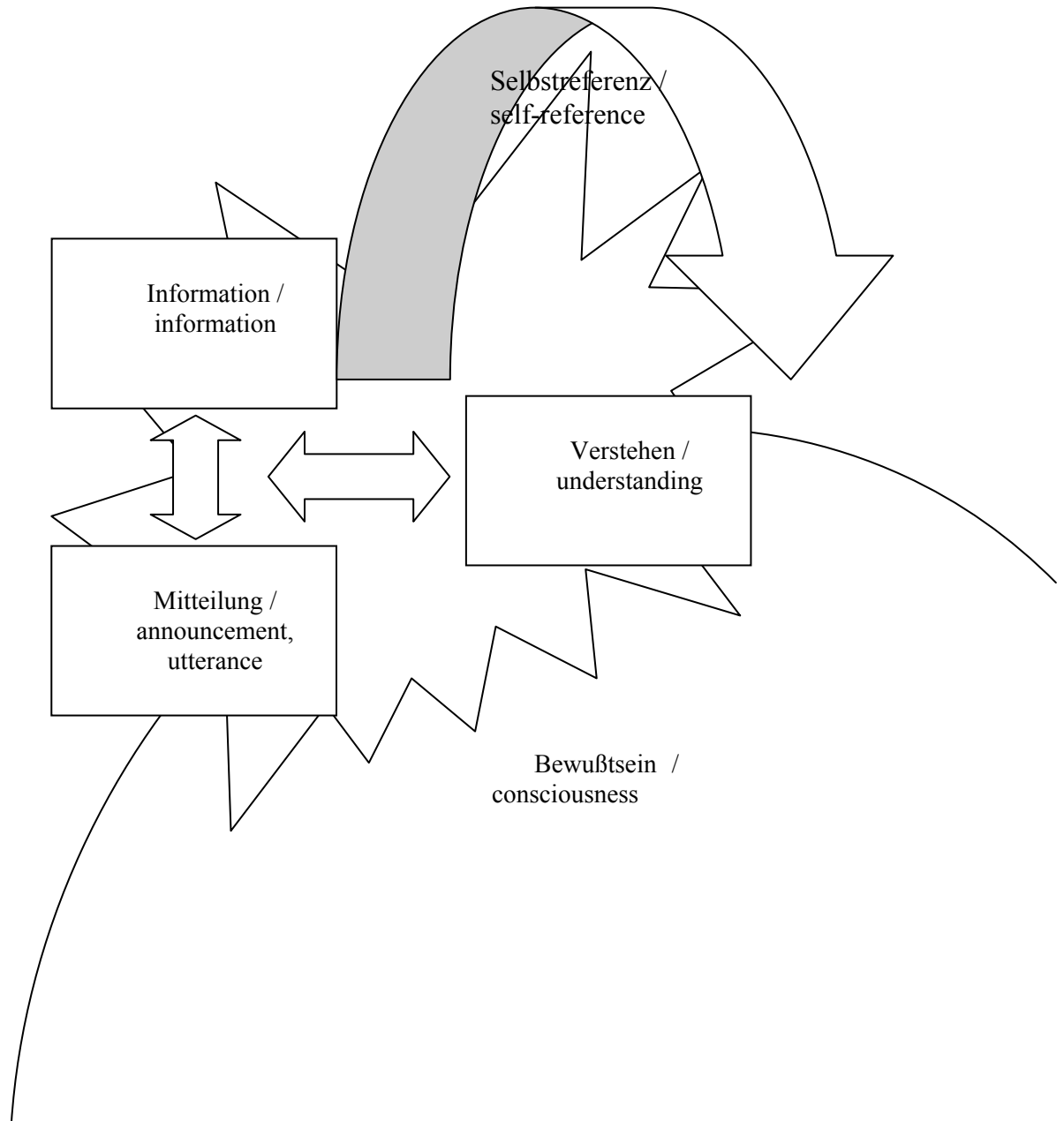
#### INHERENT INDETERMINACY FROM SELF-REFERENCES

Indeterminacy is inherent in the processes of information, announcement and understanding from perspectives of the speaker and other third persons because of the listener’s self-reference. It is also inherent even from the perspective of the listener herself because of the differences between information and announcement. The listener may react as the speaker and other persons did not expect and the listener herself may not be so sure whether she understands exactly as she should. Communication is therefore structurally indeterminate.

#### POLYSEMY AND POLYPHONY IN COMMUNICATION

Another way of expressing the indeterminacy is saying that communication is, or at least can be, always polysemous or even polyphonic (cf. Bakhtin on Dostoevsky). Given self-references, communication is open to multiple understandings and will always be. This reflects a postmodern or poststructuralist view of language use. The three-part unity of information, announcement and understanding reveals our fact of life that communication never settles and will reproduce itself by differences through self-references in the process of communication.

# SCHEMATIC REPRESENTATION OF THE THREE-PART UNITY WITH SELF-REFERENCE





### 2.2.2 Double contingency

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#### INTERLOCUTOR AND DOUBLE-CONTINGENCY

The differences caused by the three-part unity with self-references are amplified by the existence of an interlocutor. Since communication involves interlocutors in interaction, communication will be all the more complex because of double contingency.

#### CONTINGENCY IN OUR LIFE

Contingency is the concept that describes the state of affairs in our life that are neither necessary (*notwendig*) nor impossible (*unmöglich*). What happens in our life can be otherwise from the viewpoint of reality, therefore is not *necessary*. Yet it happens and therefore cannot be *impossible*. It is one of the possibilities brought upon by a course of development which is also neither necessary nor impossible. If it appears necessary, it is because it was realized by the multitude of complex interactions of actual states of affairs; its possibility may be one in million (or more than that), but it is not that it cannot have been otherwise. Not is it the case that it was a miracle (an impossible happening), for it did happen out of the millions of possibilities; it is not impossible. Things happen contingently; their development is contingent upon other affairs, which themselves are contingent upon other states (and this chain of contingency continues endlessly).

#### DOUBLE CONTINGENCY IN INTERACTION

Contingency in real life, or in interaction of communication in particular, is usually mutual. In conversation, Speaker A's first utterance is contingent upon B's possible reaction. A needs to take into account B's reaction before she constructs her speech; her speech is contingent upon B. The same is true with B; his speech is contingent upon A. The problem of each participant is recognized by the other. A knows B's contingency on her(A) and B knows A's contingency on him(B). This is the state of double contingency; each participant is mutually or doubly contingent upon the other. Initiation of communication seems a daunting task, for both participants are bound at the same time.

#### DOUBLE CONTINGENCY AND DEVELOPMENT OF COMMUNICATION

However, the initiation of a conversation is not much of a problem in reality, for interlocutors have mutual resource called "culture," upon which they expect how things should be and develop. One interlocutor may choose a topic with high anticipation regarding the other's reaction. Once communication starts, contingency may work positively for opening up far more possibilities than can be imagined when conversation is just a formulaic exchange. Speaker A may choose a new topic, contingent upon some allusion of that topic in B's utterance, when B did not anticipate the development of the conversation in that direction. Upon hearing A's new topic, B may decide to further develop the conversation in a way that A never anticipated, yet quite possible and pleasantly surprising for A. Neither A nor B know how their conversation will develop, yet it is them who develop it. This apparent paradox of not knowing what they themselves do or will do is caused by double contingency. Communication is indeterminate and never closed in one possible realm with a clear boundary.

#### COMPLEXITY OF COMMUNICATION

Indeterminacy from the three-part unity of information, announcement and understanding increases because of self-references and is amplified by double-contingency. Communication is literally "complex" in the sense no one can foresee its development because its possibilities and the

combination of them are beyond the capacity of any real world calculations. Communication is inherently indeterminate.

## 2.3 System and its environment

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### SELF-REFERENCE AND INDIRECT EFFECTS FROM THE OTHER

In the discussion of self-reference, it was confirmed that one's only resource in the process of communication is oneself alone. The mind of the other cannot be seen transparently or transmitted directly; it can only be anticipated and inferred. The mind of the other affects one only in an indirect way. It affects only as the other as one perceives not the other himself. One's mind can only be reproduced by and in oneself.

### A SYSTEM AND ITS ENVIRONMENT

Such self-organization (*autopoiesis*) is one of the distinguishing features of a *system* in Luhmann's terminology. A system is closed in its self-reproduction but open to its *environment* in that it uses the difference from its environment as "stimulus" or "irritation" to promote its self-reproduction. The environment is what the system is not; the two are complementary but distinct to each other. A system operates on its own, but under the indirect influence of its environment. Communication exerts indirect influence on the two minds of interlocutors respectively and distinctively. The two minds are not directly connected in communication. The two minds are separate two *psychic systems*, and the communication is a *social system*. These three systems are distinct in that they reproduce themselves on their own. For a system, any other systems are in its environment.

## SCHEMATIC REPRESENTATIONS OF COMMUNICATION

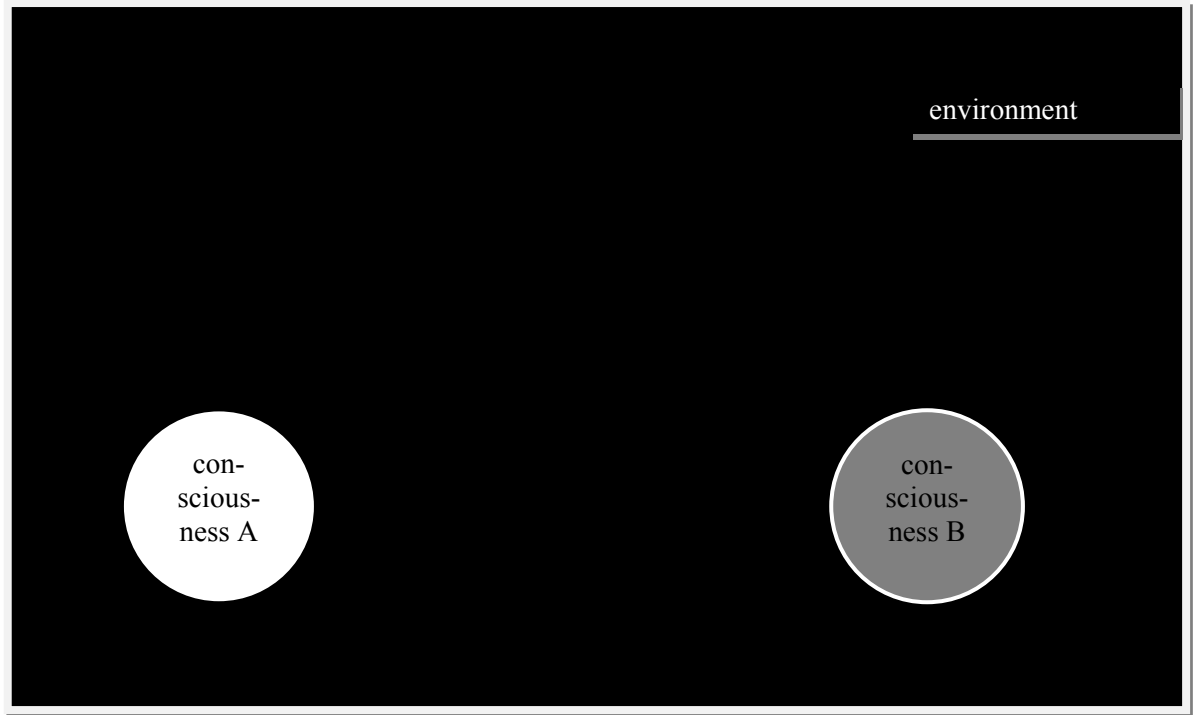
### CONSCIOUSNESS A AND ITS ENVIRONMENT

This first representation depicts the state of affairs from the perspective of one mind (consciousness A). What is transparent (in so far as one exclude the area of unconsciousness from discussion) is A's own consciousness. Outside is her environment, of which consciousness A has no direct control, and which does not constitute, but only indirectly affects consciousness A and its self-reproduction.



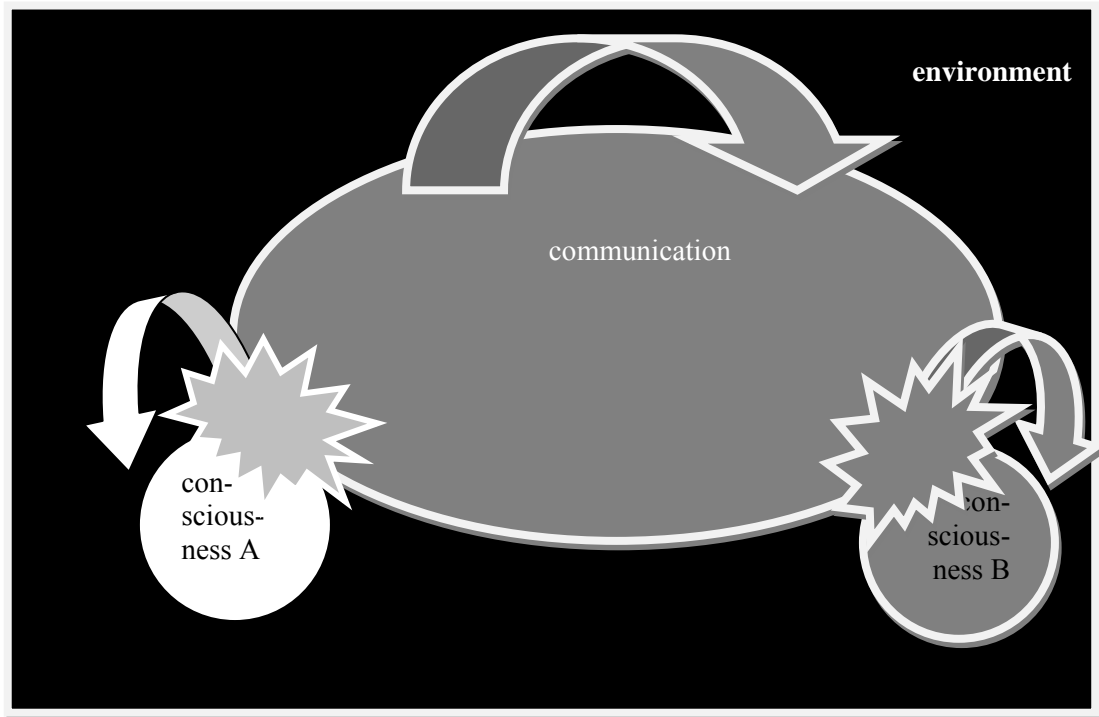
### CONSCIOUSNESS B FOR CONSCIOUSNESS A

The next representation is how consciousness B is perceived from the perspective of consciousness A. Consciousness B, the mind of the other, is in A's environment in the strict sense, yet with their shared culture, consciousness A holds a reasonable degree of anticipation about consciousness B, but not of course a direct comprehension. The color of consciousness B is grey for this reason.



### COMMUNICATION WITH CONSCIOUSNESS B FOR CONSCIOUSNESS A

The third one is how communication with consciousness B is perceived by consciousness A. The area of communication is also grey for the same reason given above.



A system theory is a comprehensive framework for the three-part unity, self-reference and double-contingency. It explains the closed self-reproduction with indirect influence from its environment. Difference and indeterminacy is caused by these features explained in the system theory.

### 3 RESULT

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INDETERMINACY <= THREE-PART UNITY <= SELF-REFERENCE AND DOUBLE CONTINGENCY <= DIFFERENCE FROM THE ENVIRONMENT <= SYSTEM THEORY

Indeterminacy in communication is structurally inherent because of a three-part unity of information, announcement and understanding on each side of participants, who are affected by their self-reference and double contingency, which are further influenced by its environment. Indeterminacy is not an extraordinary state of communication. Determinacy is.

### 4 Discussion

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NO STANDARDIZED TEST FOR COMMUNICATION?

If communication is inherently indeterminate, a test of communication is hard to be a standardized one. If it is indeed a matter of interaction with double-contingency between two individuals with respective self-reference, a standardized test which masks indeterminacy neglects the essential aspect of communication. Even if a test is about listening as a receptive skill, the indeterminacy due to the three-part unity should not be neglected.

CONVENTIONAL ASPECT OF LANGUAGE USE, NOT CREATIVE ASPECT OF COMMUNICATION

In this sense, a strategic retrieval from *communicative language ability* to *language ability* or *Target Language Use*, may be quite a reasonable step. A conservative view of language testing may be that we are only able to assess the *conventional* aspect of language use, not the *creative* one. We need to assess our tests, for knowing the limits of tests are highly critical in this competitive society, where regrettably numerical target is almost the norm.

TESTS OF COMMUNICATION MUST BE COMMUNICATED

No test of communication can be in a higher order than our communication in society. Tests of communication must be communicated by various stake-holders and other people engaged, and be in a constant process of self-reproduction. Testing is a social activity.

TESTING IS COMMUNICATION WHICH CONSTITUTES SOCIETY

We cannot supersede our communication by a test or any other means, for testing *is* communication, that constitutes society; we cannot cease to be social.

### 5 CONCLUSION

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Yes to all the two questions.

Should difference, not agreement, be assumed in communication?

Should indeterminacy, not determinacy, be assumed in communication?

Luhmann's theory of communication gives one coherent answer in his system theory.

Why should difference and indeterminacy be assumed in communication?

Difference and indeterminacy in communication are not problems for testing; it is a perpetual engine to revise tests of communication and a constant reminder that no one can finalize communication.

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