Roman Jakobson wrote a canonical text for semiotics as well as for the upcoming field of translation studies in 1959 with the title “On linguistic aspects of translation”.¹ The text is a semiotical answer to Bertrand Russell’s claim that one may only understand a word like “cheese” if one has a non-linguistic acquaintance with cheese. According to Jakobson, it should be added that one cannot understand the word “cheese” if one does not know the particular meaning the word is ascribed in English, that is, in “the lexical code of English”.

There is no signatum without signum. The meaning of the word “’cheese’” cannot be inferred from a nonlinguistic acquaintance with cheddar or with camembert without assistance of the verbal code.²

The meaning of the word “cheese”— or any other word — is definitely a linguistic fact, or to be precise, Jakobson continues, a semiotic fact. A huge amount of linguistic signs is needed to introduce a foreign word. It is not enough that someone points at the cheese in front of us, because that does not teach us whether the word “cheese” only refers to the particular one at hand or to milk products in general and so forth. This is a problem that the philosopher W. V. Quine discusses at length in another canonical text, namely “Ontological Relativity”, to which we will return.³ The exploration will then take a turn and move into Peircean pragmatics (a common denominator for Jakobson and Quine, indirect, it would seem, through Dewey, who was a student of Peirce)
and the notion of the iconic sign in the context of the study of differences between verbal language and in this case moving images, the main topic of this presentation. Jakobson writes (with reference in fact to John Dewey’s text ”Peirce’s theory of linguistic signs, thought, and meaning”\textsuperscript{4}.

For us, both as linguists and as ordinary word-users, the meaning of any linguistic sign is its translation into some further, alternative sign, especially a sign “‘in which it is more fully developed,’ as Peirce, the deepest inquirer into the essence of sign, insistently stated.”\textsuperscript{5}

Now, the word “bachelor” may be translated into a more precise word, or definition, namely “unmarried man”. There are three ways of translating a linguistic sign: it may be translated into other signs in the same language, into another language or into a “nonverbal system of symbols”, something that is perhaps better defined as a “non-linguistic semiotical system”. These systems Jakobson determines as follows:

1) Intralingual translation or rewording is an interpretation of verbal signs by means of other signs in the same language.

2) Interlingual translation or translation proper is an interpretation of verbal signs by means of some other language.

3) Intersemiotic translation or transmutation is an interpretation of verbal signs by means of signs of nonverbal signs systems.

The first alternative may be considered from the point of view of socio-linguistics. Jakobson gives the example “‘every celibate is a bachelor, but not every bachelor is a celibate’” to show that synonyms do not function as
complete equivalent replacements. The second alternative is manifested by what one in ordinary language calls translation proper, the one between languages—and between cultures, we may add, a claim (made from the point of view of cultural semiotics) that would imply that intersemiotic translation is, to a greater or lesser degree, an element in all three types of translations that Jakobson defines. For instance, the English word “cheese” does not entirely correspond to the Russian standard word for cheese, namely the heteronym “sir” since in Russian one makes a difference between “cheese/sir” and “cottage cheese/tvorog”. “Cottage cheese/tvorog” is cheese contrary to “cheese/sir”, which may be any curd product where yeast has been added.

“I hired a worker”, is another example given by Jakobson that demonstrates specific interlinguistic problems. When translating the sentence given in English to Russian, information needs to be added. The verb conjugation has to reflect whether the action was completed or not (the Russian use of verb aspects) and if the worker was a female or a man [“nanjal” or “nanimal” / “rabotnika”, or “rabotnitso”]. Thus: “Languages differ essentially in what they must convey and not on what they may convey.”

This statement is highly relevant when it comes to intersemiotic translations between verbal language and, in this case film, as the latter must give visual information about place, characters and so forth, that may be omitted in a written text. Göran Sonesson discusses this problem about the connection between referent and sign (content and expression) extensively in terms of transformation processes, a highly adequate term for defining the operation in question. In an essay about Lessing’s (1729–1781) classical discussion in his book Laokoon (1766) on the differences between verbal and pictorial art, Sonesson shows that there are transformation rules (from referent to sign via an interpreting mind) for all three types of signs. Thus, there are transformation rules based on convention (the linguistic sign) on one hand, and on motivation (the iconic and indexical sign) on the other. The main point, for our discussion,
is that on the basis of these transformation rules the rendering of the referent is necessarily different depending on in which medium it appears.\textsuperscript{7}

However, when it comes to the cognitive function of verbal language (here notably in conjunction with translation), it is dependent on the grammatical pattern of language, because experience is defined in relation to metasemiotic processes, or more broadly speaking in relation to everyday experiences. In fact, this claim could be broadened to include all types of signs (icon, index and the conventional linguistic, i.e. symbol in Peircean terminology). And when involving intersemiotic translations as the one between written text and moving images, all the three types might be called for in the metaprocess of translating from one system to the other.

\textsuperscript{[t]}he cognitive level of language not only admits but directly requires recoding interpretation, i.e., translation. Any assumption of ineffable or untranslatable cognitive data would be a contradiction in terms.\textsuperscript{8}

In a genre, as for instance poetry, where the grammatical categories contain an abundance of semantic meaning, translation, Jakobson continues, becomes much more controversial and complicated. In Russian Monday, Tuesday and Thursday are masculine, whereas Wednesday, Friday and Saturday are feminine. A test made at the Moscow Psychological Institute (1915) showed that Russians are inclined to conceive of these weekdays as masculine and feminine, respectively, without being aware of their grammatical gender. Now, this problem might be viewed from a slightly another perspective, namely from the point of view of the reference in relation to the sign and its levels of expression and content. A perspective that occupied Quine, in his inquiry into the problem of ontological relativity, that is to say, in his inquiry into the problem of reference.\textsuperscript{9}
Quine and the indeterminacy of translation

Quine, by adhering to Dewey, and what he calls the naturalistic view, takes a stance against the “‘museum myth’”, which embraces the contrary view that “words and sentences of a language have their determinate meanings.” That is, quoting Dewey:

that “meaning … is primary a property of behavior,” we recognize that there are no meanings, nor likenesses nor distinctions of meaning, beyond what are implicit in people’s dispositions to overt behavior. For naturalism the question whether two expressions are alike or unlike in meaning has no determinate answer, known or unknown, except insofar as the answer is settled in principle by people’s speech dispositions, known or unknown.  

Quine makes use in this connection of his famous rabbit/gavagai example and the problem of ostension that stipulates that the whole rabbit is present only when “an undetached part of a rabbit is present; also when and only when a temporal stage of a rabbit is present.”

How do we translate the native “expression ’gavagai’”? As ‘rabbit’ or as ‘undetached rabbit part’ or as ‘rabbit stage’?  

Ostension would not be enough to clarify the matter. That is, we cannot reach clarification only by iterating the question about the expression “’gavagai’” in front of the native while asking for “’assent or dissent’” in the presence of the “’stimulus’”.  

Whatever you do, the spatiotemporal world which is inhabited by rabbits, and that which is inhabited by undetached rabbit parts, and that which is inhabited by rabbit stages, would not make things different:

“The only difference is how you slice it”. In semiotic terms, one is tempted to translate this view into the nature of signs, namely that a sign is a point of view
on a point view, and thus a matter of “slicing” the world, metaphorically speaking. However, for semiotics verbal language and linguistics are only one perspective, of several. Other perspectives such as likeness and relations in space and time are enhanced within the iconic and the indexical signs, respectively.

However, pointing stops the infinite regress according to the following example: “‘Does “rabbit” really refer to rabbits?’ someone can answer with the question: ‘Refer to rabbits in what sense of “rabbits”? ’” thus launching a regress.” And therefore, according to Quine, we would need a background language, and then a background language to back up the previous one, and so forth. So to be able to talk “meaningfully and distinctively of rabbits and parts [...]”, we need to do so relative to a frame of reference. Quine writes: “reference is nonsense except relative to a coordinate system. In this principle of relativity lies the resolution of our quandary”. But, as we saw, the pointing ends the process.

“[r]abbits differ from rabbit parts and rabbit stages not just as bare matter, […] in respect of properties”. The relativistic thesis says that the objects of a theory, to be a proper theory, makes no sense if it does not tell us how to “interpret or reinterpret that theory in another.” “[n]o proper predicate is true of everything.”

The importance of a background theory, and the dependency of such a theory, according to Quine, “becomes especially evident when we reduce our universe U to another V by appeal to a proxy function [a function mapping objects from one domain onto objects of another ACR], or “’notion’”. For it is only in a theory with an inclusive universe embracing U and V, that we can make sense of the proxy function. “The function maps U into V and hence needs all the objects of U as well as their new proxies in V.” The proxy function does not need to be an object in the ‘universe even of the background theory.’ It can operate also merely as a “’virtual class’” (=notion). However, in the light of our
discussion the importance, notably in the process of translation, of having knowledge of the Other’s world of everyday experience, what Husserl termed the Lifeworld, is pivotal for understanding what “rabbit” really means to the Other in his or hers socio-cultural context. Thus, the question from our point of view does not primarily focus on a “background theory” as it does on the study of “background” experience(s).

From the view of the Quinean term of universes as cultural semiotical systems, providing the frames of reference and thereby giving meaning to words and objects, we may now, with a more thorough background, move on to discuss intersemiotics proper from the perspective of moving images in relation to written texts. That is, the discussion moves on to deal with signs as cognitive devices in relating to the world, and specifically we will focus on the iconic sign, of which the film is constituted per se.

Peirce’s theory of signs

An Icon is a Representamen whose Representative Quality is a Firstness [for example iconicity, ACR] of it as a First. That is, a quality that it has qua thing renders it fit to be a representamen.21

An Index […] is a Representamen whose Representative character consists in its being an individual second.22

A Symbol is a Representamen whose Representative character consists precisely in its being a rule that will determine its Interpretant.23

Signs involve three elements: 1) Representamen (the sign itself in semiosis), or expression plane (in Saussurean terminology; 2) An Interpretant (a mind interpreting the sign, and 3) An object (that which the representamen refers to by means of an interpretant.
“Independently” of the sign, Peirce defined a “fourth entity, that he termed “ground”. As Peirce wrote: “'[the sign-vehicle] stands for something, its object. It stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes called the ground of the representamen.’”

Thus, in contrast to the linguistic sign, which is based on conventionality, the iconic and indexical signs are motivated, i.e., based on a ground. In the case of the icon, the similarity between the representamen (expression plane) and its object is thus independent of the sign relation. Sonesson writes: “An index, then, must be understood as indexicality (an indexical relation, or ground) plus the sign function. Analogously, the perception of similarities (which is an iconic ground) gives rise to an icon only when it combines with the sign function.”

A typical example of an icon is the picture and its visual similarity to that which it depicts. However, any particular thing may possess several qualities that have the potential to become the basis for an iconic ground (see figure below).

Sign model (Object, Interpretant & Representamen):
examples he compares Franklin and Rumford “‘from the point of view of their being American, we establish an iconic ground [‘potential sign-vehicle’, ACR]’, but only at the moment Rumford ‘‘is made to represent Franklin [to an interpreting mind, ACR] do they become iconic signs.’”

So, how are Jakobson, Quine and Peirce related within the frames of an inter-semiotic and theoretical discussion? So far I have tried to show the importance that these three scholars attach to defining a way of systematically segregating different systems. For Quine, it is pivotal to demonstrate that meaning is relative to the systems/contexts providing the reference to the linguistic sign; for Jakobson the undertaking has both cultural and purely semiotics implications, since to him culture as well as different semiotic resources are considered as systems (in a structural sense). Now, Peirce’s classification of signs (and his notion of ground) is important in this context, since it gives us analytical tools by means of which we may discuss and define different semiotic systems, in their relation to each other. In the light of this we are now moving on in order to wind up this essay by demonstrating, very briefly, some differences between the linguistic sign and the iconic, which are important to keep in mind when considering the problem of adaptation i.e., in this case, transforming processes from verbal language to film.

Intersemiotics, or the importance to keep track of differences: the example of word and film

Articulation [language, ACR] requires discrete units [non-continuous, ACR] with typical distinctive markers at the same level.30

Film has no equivalents of distinct units and consequently, when analysing the way film conveys meaning, linguistic models (such as for instance the one eventually developed by Christian Metz) may not fully explain this problem.
So far our discussion has mainly been concerned with the linguistic sign, the conventional sign in a Saussurean sense, which Peirce a bit misleadingly called symbol. The study will now take another turn and focus on the iconic sign, of which the film is constituted, or more precisely a comparison (in the sense also of finding differences) between the linguistic sign and the iconic. Film being iconic implicates (with reference to previous discussion) that linguistic models cannot without difficulty be applied. Why?

Sign arbitrariness perhaps has some plausibility for language, yet if it comes to resemble “motivation” it challenges the very structural explanation. Moving images are so obviously “motivated signs” that it becomes highly counter-intuitive to maintain an arbitrary relation between the expression and the notional content.\(^\text{31}\)

Now, as Sonesson shows, the picture (as a motivated sign) has a relation to the “real”, or otherwise put, to the Lifeworld, and therefore as an iconic sign it must rest on a more generic level. There must be some characteristics that appear in all pictures (including the moving), since it has turned out that children who grew up without pictures may without difficulty recognise the object depicted.\(^\text{32}\)

In the light of this, what are the implications for an analysis focusing on comparing transformation process conditions in written texts, more precisely within the field of adaptation, fiction, and those in film? One way to start is to scrutinize narration in the two types of semiotic systems.

Film is, as we have seen above, made up of non-discrete units (continuous). “Non-discrete units cannot form a syntax as second articulation. Yet only through syntax can tenses arise […].”\(^\text{33}\)

Now, verbal language is characterised by having a second articulation, that is, language may be divided a second time (the word/sign being the first unit) into phonemes and letters having no meaning in themselves. Film, being foremost
iconic has no equivalent to a second articulation. So how may film express time (which it does), which is intrinsic to narratives?

In the context of the Peircean triadic sign processes it [semiotic film theory, here contrasted to syntagmatic film theory”, ACR] relates two (indexical or iconic) facts under one general respect. This general respect can be syntax, of course, but it can also come from another Symbol such as narrative enunciation."

What Johannes Ehrat probably wants to display is that, according to Peirce, there are no pure icons, there is always elements of indices and symbols (the linguistic sign) present. So, narrative in moving images (dialogue, voice-over and so forth excluded) may also have conventional features. Thereby it shares some important characteristics with written fiction.

Thus, narration may account for temporality in both written texts and film, however film is more than temporality. When studying the nature of film, one has to deal with the experience of time.

How is time taken in charge of cinema in a direct but not yet narrative way? In agreement with Morris and Eco, by “reproducing’ or motivated “iconic” signs [...] we can establish a strict bi-univocal [1:1 relation, ACR] relationship between the two times of sign and object: one passively mirrors the other.

This is also defined as the iconic “representation of the time experience”. To the contrary of verbal language.

[time lacks bi-univocity […] in a natural language’s representation of time. […] what “long” means is established by the context in (and for) unique or singular circumstances. In a natural language communicating act, enunciation can ignore a signification that can be related exactly to objective time.
Thus, iconic time makes “construction” of Gestalts (in the sense Gestalt psychology defines it) impossible. The film moves literally in front of us, we have no possibility to fill any gaps of meaning (when watching) as when reading a novel (such as for example, the looks of the character, scenery and other implications of that sort). This (the “imprecision”) being so depends on the arbitrary nature of natural languages. There are three logics that signify cinema.

1) The narrative
2) “’Logic of things’”: Cinema specific, “making the strict logic of narrative less constraining.”
3) “’Implication’” logic”: creating “temporal order” through, for instance, “editing styles”.

The first point is in linguistics detemporalised, determining a sequence of events, and possibility and order of events. The second point implicates that “Cinematic narratives only connect the veri-similar, not ‘hard factual and present truth’”. The two logics may be connected in a way that defines “’style’, ‘genre’ and so on.” The third and last point is the most difficult to formalise. Why?

The propositional copula “i” relates “what is” in a detemporalised way. Cinema shows things “now”. What they “are” is therefore difficult to determine. As a mere temporal articulation cinema “is” re-cord or memory. These pieces of record are joined into a whole by modal logic. The logical necessity of this join on an instance of modalization, which adds meaning to anything downstream (i.e., the temporal dimension).41
So, what reference is there to iconic time, to what system does it relate? Of what is it a transformation in moving images? But perhaps more importantly, how do we perceive narratives in different semiotic systems as written texts and film? Does the iconic dimension in film, which prevents us from constructing Gestalts (depending on the number of frames / second), affect how we perceive narrative time in that particular medium, in comparison to a written text? In fact, this might prove to be questions ultimately best answered within the frames of a cognitive neurological semiotics, which is still to be fully developed. The experience of iconic filmic time might also have something to do with our everyday experience of time (which I think it is has), and thus is a question for phenomenological semiotics.

6 Jakobson, 1959, p. 236
8 Jakobson, 1959, p. 236.
9 W. V. Quine, 1969.
10 W. V. Quine, 1969, p. 29.
15 W. V. Quine, 1969, p. 50.
16 W. V. Quine, 1969, p. 51.
17 W. V. Quine, 1969, pp. 57–58.
18 W. V. Quine, 1969, p. 57.
19 W. V. Quine, 1969, p. 57.
20 W. V. Quine, 1969, p. 57.
31 Ehrat, 2005, pp. 179-180
33 Ehrat, 2005, p. 191.
34 Ehrat, 2005, p. 191.
40 Ehrat, 2005, p. 216.