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Belief and Certainty as Normal Interpretants:
A suggestion of how to read Peirce's semiotic classification system

[NB: *Incomplete draft version – not for circulation or quotation!*]

In most of his texts, Peirce distinguishes, at least implicitly, 'certainty' from 'belief'. 'Belief', in the sense of Peirce, might be described as a person's commitment to a proposition, and hence takes the shape of a judgment¹, whereas 'certainty', or 'assurance', requires grounds. A believer is somebody who holds something true²; in order to gain 'certainty', or 'assurance', however, she has to get clear about *why* she should hold true – or not – what she has actually found herself to hold true so far. In short: Certainty is based on pondering arguments, belief isn't.

This basic pattern, inherited from a long philosophical tradition reaching back to classical antiquity and medieval times, is retained in Peirce's semiotic classification system of 1905 which identifies judgments and arguments alike as, albeit structurally different, results of

¹ Terminologically, I should like to discriminate between *judgment* on the one hand (a once degenerated normal interpretant) and, on the other hand, *assertion* as a speech act performed by an utterer towards a listener (a genuine dynamic interpretant). Cf. CP 2.334f (c. 1895): "In every assertion we may distinguish a speaker and a listener. The latter, it is true, need have only a problematical existence, as when during a shipwreck an account of the accident is sealed in a bottle and thrown upon the water. The problematical 'listener' may be within the same person as the 'speaker'; as when we mentally register a judgment, to be remembered later. If there be any act of judgment independent of any registry, and if it have any logical significance (which is disputable), we may say that in that case the listener becomes identical with the speaker. The assertion consists in the furnishing of evidence by the speaker to the listener that the speaker believes something, that is, finds a certain idea to be definitively compulsory on a certain occasion." CP 5.30 (1903): "Now it is a fairly easy problem to analyze the nature of *assertion*. To find an easily dissected example, we shall naturally take a case where the assertive element is magnified -- a very formal assertion, such as an affidavit. Here a man goes before a notary or magistrate and takes such action that if what he says is not true, evil consequences will be visited upon him, and this he does with a view to thus causing other men to be affected just as they would be if the proposition sworn to had presented itself to them as a perceptual fact. We thus see that the act of assertion is an act of a totally different nature from the act of apprehending the meaning [...]" CP 5.546 (c. 1908): "What is the nature of assertion? We have no magnifying-glass that can enlarge its features, and render them more discernible; but in default of such an instrument we can select for examination a very formal assertion, the features of which have purposely been rendered very prominent, in order to emphasize its solemnity. If a man desires to assert anything very solemnly, he takes such steps as will enable him to go before a magistrate or notary and take a binding oath to it. Taking an oath is not mainly an event of the nature of a setting forth, *Vorstellung*, or representing. It is not mere saying, but is *doing*. The law, I believe, calls it an 'act.' At any rate, it would be followed by very real effects, in case the substance of what is asserted should be proved untrue. This ingredient, the assuming of responsibility, which is so prominent in solemn assertion, must be present in every genuine assertion. For clearly, every assertion involves an effort to make the intended interpreter believe what is asserted [...]"

² CP 5.375 (1877): "[...] we think each one of our beliefs to be true, and, indeed, it is mere tautology to say so."

interpretation processes, namely as different kinds of so-called normal interpretants.³ Even though the semiotic approach as such, that is, the idea to analyze judgments and arguments by using the concept of sign, is much older than Peirce, the intricate differentiation between sign, various kinds of objects, and various kinds of interpretants goes back to Peirce exclusively. It is this intricate differentiation I am going to relate to in the following because it seems crucial for the question of how to conceptualize certainty in the wake of Peirce. So let me give a very brief explanation first of how the aforesaid “full system of semiotic”, as David Savan calls it⁴, works, before dealing with the concept of certainty.

1. Preliminaries: signs, objects, and interpretants

Peirce’s fully developed semiotic system allows for altogether six kinds of interpretants (i.e. results of interpretation processes), among them three kinds of normal interpretants. The characteristic of normal interpretants, compared with the remaining other kinds of interpretants, is that they *represent*, that is, they reproduce, or transform, the sign in its relation to its genuine dynamic object such that this relation will ultimately become recognizable to others (this latter aspect has been stressed by Royce). Normal interpretants, in short, facilitate deliberate communication.

While any normal interpretant represents (i.e. makes visible) the sign in its relation to its genuine dynamic object, these representations may structurally differ, depending on *how much* is represented apart from the sign proper, or how *explicit* the relation between sign and genuine dynamic object becomes. In my reading, signs of the 8th trichotomy are represented by normal interpretants which take the shape of *terms*. If I look into yesterday’s newspaper, my eye randomly falling upon the word ‘tomorrow’, I will translate the sign ‘tomorrow’ into a normal interpretant like ‘today’, or perhaps like ‘September 20th’; and if I come across the word ‘blue’,

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SIGN	(in relation to) OBJECT			(in relation to) INTERPRETANT					
	Immediate Object	Dynamic Object		Immediate Interpretant	Dynamic Interpretant		Normal Interpretant		
1	2	3	4	5	6	7	8	9	10
		Degenerated	Genuine		Dege-nerated	Genuine	Twice Degenerated	Once Degenerated	Genuine
<i>Mark</i>	<i>Descriptive</i>	<i>Abstractive</i>	<i>Icon</i>	<i>Hypothetical</i>	<i>Congruentive</i>	<i>Suggestive</i>	<i>Gratific</i>	<i>Seme</i>	<i>Abducent</i>
<i>Token Type</i>	<i>Designative General</i>	<i>Concretive Collective</i>	<i>Index Symbol</i>	<i>Categorical Relative</i>	<i>Percussive Usual</i>	<i>Imperative Indicative</i>	<i>Actuous Temperative</i>	<i>PHEME Delome</i>	<i>Inducent Deducent</i>

⁴ DAVID SAVAN, *An Introduction to C. S. Peirce’s Full System of Semiotic*, Toronto: University of Toronto Press, 1988.

I may transform this, for instance, into ‘blue, understood as my invariably private blue-experience’, or ‘blue, understood as this blue-event right in front of me’, or ‘blue, understood as the electromagnetic wave spectrum between 420 and 480 nanometers’, etc. – there are several possibilities, depending on the kind of genuine dynamic interpretant preceding. Interpretants of signs which are to be classified as *gratifics*, in Peirce’s terminology, render the relation between sign and normal interpretants as vague, just like in the case of the sign ‘blue’ being transformed into the normal interpretant ‘blue as some (or other) private blue-experience’, or ‘blue as some (or other) blue-event’, or ‘blue as some (or other) electromagnetic wave spectrum’. Interpretants of signs which are to be classified as *actuousses* render the relation between sign and genuine dynamic object as definite, just like in the case of the sign ‘blue’ being transformed into the normal interpretant ‘this blue-event (I am indicating now)’ or ‘this electromagnetic wave spectrum (I am indicating now)’. Interpretants of signs which are to be classified as *temperatives* render the relation between sign and genuine dynamic interpretant as determinate (they offer definitions), as in the case of the sign ‘blue’ being transformed into the normal interpretant ‘blue as the electromagnetic wave spectrum between 420 and 480 nanometers’.

Two points are of importance here which will likewise touch upon the belief-and-certainty issue. First point: The full process of interpretation leading to a term for normal interpretant involves four steps of interpretation altogether which intertwine with the interpreter’s *self*-interpretation. The *first* and basic step, the formation of an *immediate interpretant*, consists in the spontaneous evaluation of the sign by the interpreter as she finds her attention drawn to what she understands the speaker to mean. This spontaneous evaluation is qualitative by nature, which is why Peirce occasionally uses the expression ‘emotional interpretant’. The general thesis that emotional components play a role in linguistic processes, also proposed by egyptologist Alan Gardiner⁵, has been confirmed by Charles E. Osgood, George J. Suci and Percy H. Tannenbaum as early as in 1957, who developed a statistical method for measuring the ‘affective meaning’ of vocabulary⁶, and by Chinese and German researchers who used brainmapping studies in order to show that electric brain waves differ, depending on the positive or negative connotation of words⁷, and who concluded: “[...] the processing of affective meaning takes place prior to the processing of conceptual meaning.”⁸

⁵ ALAN GARDINER, *The Theory of Speech and Language*, 2. ed., Oxford: Clarendon Press, 1951 (1st ed. 1932), 86: “There are some modern philologists who go much too far in the direction of denying the validity of feeling as a serious grammatical criterion. To them external form is everything, the felt quality nothing. I expressly reject this curious parallel to behaviourism in psychology. Everyone who is in the least sensitive to language knows the different feel of a noun, an adjective, and a verb. In linguistic matters feeling is of paramount importance.”

⁶ Cf. CHARLES E. OSGOOD / GEORGE J. SUCI / PERCY H. TANNENBAUM, *The Measurement of Meaning*, 8. ed., Urbana/Chicago/London: The University of Illinois Press, 1971 (1st ed. 1957).

⁷ Cf. WOLFGANG SKRANDIES, “Evoked potential correlates of semantic meaning – A brain mapping study”, in: *Cognitive Brain Research* 6 (1998), 173-183; WOLFGANG SKRANDIES / MING-JANG CHIU, “Dimensions of affective semantic meaning – behavioral and evoked potential correlates in Chinese subjects”, in: *Neuroscience Letters* 341 (2003), 45-48; WOLFGANG SKRANDIES / MING-JANG CHIU / YURU LIN, “The Processing of Semantic Meaning in Chinese Words and Evoked Brain Topography”, in: *Brain Topography* 16/4 (2004), 255-259.

⁸ DANLING PENG / ZHIGUO HU / HONGYAN LIU / CONGHUI LIU / GUOSHENG DING, “Neuro-cognitive mechanisms underlying the emotional modulation of word reading”, in: *Chinese Science Bulletin* 51/4 (2006), 377-384, 379.

The *second* step, the formation of a *degenerated dynamic interpretant*, includes what I would like to call self-conceptualization: The interpreter decides to ask herself (there is a volitional component here) what she herself has been recognizing for the sign's object so far: she draws on her previous experience in order to establish her own relation to what is signified by the sign. The *third* step, the formation of a *genuine dynamic interpretant*, leads to a self-positioning of the interpreter towards the speaker: The interpreter may leave the speaker indefinite, thus supposing a non-definable difference between her own assessment of the object and the speaker's: the speaker appears to her as 'somebody' (sign is a *suggestive*). Or the interpreter identifies the speaker as a distinct person in space and time so that she may either take over the speaker's alleged standpoint in relation to the object or, on the contrary, repudiate it (sign is an *imperative*). Or the interpreter supposes a generalized speaker so that she assumes the object to be the same for everybody, including herself (sign is an *indicative*). And the *fourth* and last step, the formation of a *twice degenerated normal interpretant* leads to the representation of the sign by means of a term: The sign, now in the meaning it has acquired for the interpreter, is being reproduced.⁹ Second point: The object which the sign is being interpreted to signify is not simply an 'external thing', whether real or fictive, but a thing in its relevance or its value for the interpreter; it consists in a relation between the interpreter's self and what she finally refers to after having passed through the process of interpretation. As indicated, this process of interpretation involves emotional and social components which make the sign's object continually grow and change throughout the process, as well as the interpreter's self.

2. Beliefs and judgments

⁹ The spectrum of possible shapes a term (considered as an interpretant of a sign of the 8th trichotomy) may take depends on the preceding genuine dynamic interpretant.

In case of language signs (or rather: signs which are identified as language signs by the interpreter), a *suggestive* will always be transformed into a *gratific*: If the interpreter leaves the speaker indetermined, so that she supposes her own grasp of the object as being essentially incongruous that of the speaker, she will have to represent the sign as vague: 'some (invariably private) blue-experience' (meaning: my very own blue-experience which I will never be able to establish as either identical with or different from the speaker's blue-experience). (Note that the concept of *suggestive-gratifics* bears implications for the problem of qualia.)

If the interpreter identifies the speaker as a definite individual ('this speaker'), she may either leave the sign vague (*imperative-gratific*): 'some blue-event' (meaning: 'some blue-event the speaker points to and I would be able to point to, too, if I knew where the speaker is located, which I don't'). Or she represents the sign as definite (*imperative-actuous*): 'this blue-event' (meaning: 'this blue-event the speaker indicates and I am capable of indicating, too).

If the interpreter supposes a generalized speaker ('every speaker'), she may either leave the sign vague (*indicative-gratific*): 'some electromagnetic wave spectrum' (meaning: 'some electromagnetic wave spectrum which, once defined, would be the same for everybody, regardless where and when, but which happens to be undetermined right now'). Or she represents the sign as definite (*indicative-actuous*): 'this electromagnetic wave spectrum' (meaning: 'this electromagnetic wave spectrum which would be the same for everybody, regardless where and when, but which happens to be indicated by the speaker here and now in front of me so that one has to be in the presence of the speaker in order to see which spectrum exactly he is pointing to'). Or she renders the sign determinate (*indicative-temperative*): 'the electromagnetic wave spectrum between 420 and 480 nanometers' (meaning: 'the electromagnetic wave spectrum between 420 and 480 nanometers which is the same for everybody, regardless where and when').

Signs of the 8th trichotomy are no candidates for the belief-and/or-certainty problem because they do not claim anything, as not only Peirce noted; they do not represent the sign as signifying something actually existing. Signs of the 9th trichotomy do: They produce judgments *about* something, that is, beliefs. A judgment differs from a term in that a judgment represents sign and genuine dynamic object as separate entities, and hence makes the kind of relation between the two of them explicit. It does so (1) by representing the sign as the logical predicate, namely as that element of a proposition which can be modified and negated, and (2) by representing the genuine dynamic object as the logical subject. (This sort of distinction between the sign and the genuine dynamic object resembles very much the linguistic distinction between ‘rheme’, as the new element being introduced into conversation, and ‘theme’, as the common ground or the already familiar topic the rheme is about.) Imagine a street sign showing an upward pointing arrow and beneath the pictogram of an airplane. If the interpreter, depending on her situation or her actual mind-set, takes for sign the pictogram of the airplane (or rather: its normal interpretant, the concept of airport), and for immediate object the arrow (or rather: its normal interpretant, the concept of the direction straight ahead), she might produce a judgment like: ‘straight ahead there is an airport (and not no airport, as I originally expected)’, or, if she mistrusts street signs, a judgment like ‘straight ahead there is *perhaps* an airport (and not no airport)’. Or, if she happens to roughly know the area straight ahead, she might even be inclined to disagree with the street sign, that is, with the (in this case generalized) speaker: ‘straight ahead there is no airport at all’. If, on the other hand, the interpreter picks out for sign the arrow, she might come up with a judgment like: ‘The airport (I’m well acquainted with and I’m looking for) is straight ahead (and not behind me, as I might have suspected)’.

The relevant point here is that judgments, in order to act as fully-fledged once degenerated normal interpretants, need to be *explicitly* specified according to modality – ‘[I believe] it may be the case that’, ‘[I believe] it is actually the case that’, ‘[I believe] it is always/necessarily the case that’ – and in addition need to *explicitly* state the kind of negation they use (subcontrary, contradictory, or contrary). Also, any belief, as far as I can see, will be rooted in one of two possible sources, depending on the sort (not the class) of sign. In case of linguistic signs, the interpreters’ belief will result from her assent or dissent to the speaker’s assertion, and hence will be influenced by her earlier self-positioning towards the speaker through the genuine dynamic interpretant. In other words: Beliefs which result from communication include that the interpreter – the believer – acknowledges (or else defies) something like ‘authority’ on the part of the speaker. In case of non-linguistic signs, the interpreter’s belief will process perceptions.¹⁰ (Note that already Augustine distinguished between linguistic and perceptual signs, calling them ‘signa data’ and ‘signa naturalia’. In passing I should also like to mention that percepts do not establish grounds: beliefs anchored in perception merely transform percepts, but cannot be justified by them in the way certainty is justified by arguments.) In both cases, however, the emotional and volitional component is there as well as in the formation of terms: The immediate interpretant consists in the interpreter’s qualitative evaluation of the fact as asserted by the speaker, that is, of the asserted fact in its meaning for herself, the interpreter; and the degenerated dynamic interpretant (the self-

¹⁰ Cf. CP 6.395 (1878): “In our day, belief [...] depends more and more upon the observation of facts.”

conceptualization) contains the interpreter's decision to deliberately react to the speaker's assertion, by asking herself how the speaker's assertion fits her own previous knowledge, before then, through the genuine dynamic interpretant (the self-positioning), agreeing or disagreeing with the speaker on the matter on hand.¹¹ In other words: The formation of belief in the sense of judgment includes something like a struggle with doubt: not yet an open or explicit doubt, just the awareness that things might be different from the way they were stated by the speaker. – In any case, Peirce seems to have taken the emotional and the volitional component into account as early as in the seventies, long before drafting his full semiotic system, by stating with regard to beliefs that “there is a certain feeling with regard to a proposition”, and then also “a disposition to be satisfied with the proposition”¹². Beliefs, in short, are multi-layered entities.

There are two slightly different cases which need being looked into. Pragmatists usually stress the point that beliefs govern actions, indeed, that their meaning be equivalent with the actions they trigger. A belief which is the result of a semiotic process as just described can, in a second step, function as a sign which then may be interpreted through a genuine dynamic interpretant. This is the case Peirce mostly has in mind: “The Assassins, or followers of the Old Man of the Mountain, used to rush into death at his least command, because they believed that obedience to him would insure everlasting felicity. Had they doubted this, they would not have acted as they did. So it is with every belief, according to its degree.”¹³ If I drive along the highway in order to get to the airport, and the filling station attendant tells me to turn around because the airport lies in the opposite direction, I may first come to the conviction – maybe reluctantly, but based on my trust in the knowledge of the filling station attendant – that the airport does indeed lie in the opposite direction, and, only then, in a second process, turn my car around. So what will have happened here is: The original normal interpretant, the judgment ‘the airport lies in the opposite direction’, has become a sign, the immediate object being the relation of myself, intent on arriving at the airport, to the fact that the airport actually lies behind me instead in front of me, so that the immediate interpretant may manifest itself as the emotion of my anger about having moved in the wrong direction up to now. The degenerated dynamic interpretant, the act of self-conceptualization, will consist in my impulse or decision not to lose

¹¹ A *gratific* can only become a *seme*: If the sign is represented as vague (8th trichotomy), the relation between sign and genuine dynamic object (9th trichotomy) will have to be represented as vague, too: as subjectively possible, but nothing more. The result will be a hypothetical judgment of a specific kind (‘*maybe* it is the case that Frankfurt Airport is inconvenient [inconvenience not having been clearly defined] – and maybe not’). If the sign is represented as definite (*actuons*), the relation between sign and genuine dynamic object can be displayed either as vague/possible (‘*maybe* it is the case that Frankfurt Airport lies to the west of Frankfurt [and maybe not]’ – *seme*) or as actually subsisting (‘it is *actually* the case that Frankfurt Airport lies to the west of Frankfurt [and not the case that it does not lie to the west of Frankfurt]’ – *pheme*). If the sign is represented as determinate (*temperative*), the relation between sign and genuine dynamic object can be displayed as vague/possible (‘*maybe* it is the case that all airports contribute to air pollution [and maybe not]’ – *seme*), as actually subsisting (‘it is *actually* the case that all [known] airports contribute to air pollution [and not the case that they don’t contribute]’ – *pheme*) or as necessary (‘all airports [past, present, and future] cannot help contributing to air pollution’ – *delome*).

¹² CP 7.313, editors’s note 3 (1872/73 / [Of Reality]). The full quotation runs: “... the characters of belief are three. First, there is a certain feeling with regard to a proposition. Second, there is a disposition to be satisfied with the proposition. And third, there is a clear impulse to act in certain ways, in consequence.”

¹³ CP 5.371 (1877 [Fixation of Belief]).

my way any longer but get myself to the place where I believe the airport to be located, the degenerated dynamic object being myself as better not missing the airport. And the genuine dynamic interpretant, the act of self-positioning, will be the physical action of turning the car, with the genuine dynamic object being the spatial relation of the airport to my body. So at this point Peirce's semiotics yield something like an action theory.

Consider the second case: If I drive along the highway in order to get to the airport, and suddenly see in my rear-view mirror a street sign with an upturned arrow plus a pictogram of an airplane, planted alongside the opposite carriageway, I will very likely look instantly for the next possibility to turn around and take the other direction. Most probably, I will *not* say to myself: 'ah, the airport might lie in the other direction, or, again, it might not', or ponder on the question whether the person who put the street sign there knew their way, or whether an evil authority in this area takes delight in misleading clueless drivers. Also, I will not question myself if I really should apply my belief to my course of action, or rather not. So instead of taking an earlier judgment of mine as a whole for sign, I will just pick out the arrow, the airport in relation to myself functioning as immediate object, the degenerated dynamic object being myself as anticipated by myself to arrive at the airport, and the genuine dynamic object being my physical self continually reducing its spatial distance to the airport. The difference between the first and the second case may be dim but nonetheless not irrelevant: In the second case I will have reacted to the sign as if it were not a linguistic sign, uttered by some fellow person with an intention to communicate, or a conceptual sign, present to myself as *my* concept, but as if it were a quasi natural sign: simply there, and quite unintentionally so. The second case resembles the instance of a dog smelling fire and promptly running away. In the first case, by contrast, the sign is my explicitly formulated belief about the location of the airport, so that my reacting to the sign will include a positioning of myself towards myself as a firm believer.¹⁴ The point I want to make becomes more obvious if we consider a judgment which originally resulted from a *seme*: A judgment like 'maybe the airport lies in the opposite direction' falls into the same category as a judgment like 'the airport does actually lie in the opposite direction' (*pheme*), but, acting as a sign, will produce a different sort of genuine dynamic interpretant: the interpreter will hesitate to turn her car around. This capability to let the interpreter pause and falter belongs to signs which appear as judgments for beliefs. So the first case requires something like a fully-grown self-awareness, or self-reflection, whereas the second case doesn't.¹⁵ This means: Two actions which may appear identical from an observer's standpoint can still vastly differ, viewed from a semiotic angle. So belief, in terms of action, does not equal belief. Or, in other words: If every action is governed by a 'belief', as pragmatists are inclined to state, these 'beliefs' may structurally vary, and some of them may not be beliefs at all. The concept of belief requires

¹⁴ CP 1.55 (c. 1896 / [History of Science]): "If a proposition is to be [applied to action, it has to be embraced, or believed without reservation. There is no room for doubt, which can only paralyze action." – Cf. CP 5.371 (1877 / [Fixation of Belief]): "But this is not all which distinguishes doubt from belief. There is a practical difference. Our beliefs guide our desires and shape our actions. [...] The feeling of believing is a more or less sure indication of there being established in our nature some habit which will determine our actions. Doubt never has such an effect."

¹⁵ Cf. CP 3.160 (1880): "A cerebral habit of the highest kind, which will determine what we do in fancy as well as what we do in action, is called a *belief*. The representation to ourselves that we have a specified habit of this kind is called a *judgment*."

Careful differentiation.

3. Certainty and argument

Just as judgments build from terms, arguments build from judgments: Interpretants of signs of the 8th trichotomy are needed for interpretants of signs of the 9th trichotomy, and interpretants of signs of the 9th trichotomy are needed for interpretants of signs of the tenth trichotomy. And just as interpretants of signs of the 8th trichotomy – terms – may act as signs of the 9th trichotomy, being interpreted through judgments, interpretants of signs of the 9th trichotomy – judgments – may act as signs of the 10th trichotomy, being interpreted through arguments: They can be justified. So the very utmost a judgment will become, semiotically speaking, is a sign of the 10th trichotomy. In other words: While mere judgments, considered as interpretants of signs of the 9th trichotomy, involve truth claims, they neither test nor justify these truth claims. They correspond to what traditionally has traditionally been called ‘subjective certainty’. Normal interpretants of signs of the 10th and last trichotomy, however, rely on grounds, and insofar correspond to what has been called ‘objective certainty’.

What is the genuine dynamic object of a judgment which is being interpreted through an argument? In my view, the genuine dynamic object is what is represented by the premisses of an argument, whereas the sign is the original judgment or belief waiting for justification, and represented as conclusion. So while a judgment represents the mere relation between sign and genuine dynamic object, an argument represents this relation as one of inner coherence, as a relation of consequence and condition, of implication and implicator. In other words: An argument mediates between the logical subject and the logical predicate of the original judgment now acting as sign, by contributing an additional term and explicating its relations to subject and predicate expression. This is why an argument finally assigns a precise truth value to the conclusion, based on the way the premisses are combined: ‘It is necessarily true that I will die because I am a human and humans die’ (deduction), or: ‘it is probably true that I will die because I am human and up to know all previously existing human have died’ (induction), or: ‘it may be true that I will die because my cat died and it had brown hair just like me’ (abduction). This means: (a) the genuine normal interpretant represents the genuine dynamic object as a complex intrinsic relation and thus as *real*, as opposed to merely existent, (b) it represents the sign to be more or less equivalent with the genuine dynamic object, this equivalence being lowest in abduction and highest in deduction.

What is the immediate object of a judgment which is being interpreted through an argument? This is a crucial question and I have nothing more than a suggestion to offer: The immediate object is the very first justification of the original belief which is suggested to the interpreter either by the speaker or by her own previous experience: I may, looking for justification of my belief that I will die, spontaneously compare myself with my cat or else with my fellow humans, depending on my actual mind-set. Or if my belief really is that I won’t die I may spontaneously think of my siblings who haven’t died yet either. In any case, the immediate interpretant consists in drawing a spontaneous connection between one’s belief and some section of one’s experience. Just as the immediate interpretant of signs which are going to

be represented through judgments requires the ability on part of the interpreter to recognize that she is spoken to, and challenged to relate to what the speaker says, the immediate interpretant of signs which are going to be represented through arguments requires the ability to look for contiguities.

The degenerated dynamic interpretant of a judgment seems to consist in a kind of contextualization of the justification on offer: The interpreter decides to check whether the justification presented to her really fits her set of convictions, that is, she decides to check whether the justification appears plausible or not. If her original belief has been, for instance, that she won't die because her siblings haven't died either, she may now rather come to the insight that even her siblings are not immortal, or that even though her siblings haven't died yet, her parents actually did. So the degenerate dynamic object will consist in a corrected, affirmed or refuted justification.

The genuine dynamic object, finally, is what the interpreter ultimately settles on for justification, with the risk of having to alter her original belief: If she goes with the insight that even her siblings are not immortal, she will very likely come to refute her original belief that she won't die. Although it is the genuine dynamic interpretant which binds together sign and genuine dynamic object, it is only the genuine normal interpretant which represents the connection between the two of them by means of premisses and conclusion.

I won't elaborate here on the three different forms of justification established by Peirce: abduction, induction and deduction. They differ by form and hence by strength; however, each of them fulfils a specific function. Abduction leads to the formation of new class concepts ('myself and the cat as belonging to the same class because of our sharing brown hair'), and class concepts are needed for induction. Induction leads to the formation of sentences with universal quantifiers ('all living things with brown hair have died so far / all humans die'), and sentences with universal quantifiers are needed for deduction.

There are three relevant points here. Firstly, Peirce warns against overestimation of the certainty issue, insisting that uberty – fruitfulness – might be much more valuable because only uberty grants a wealth of possible links between different parts of experience, and so leads to new discoveries. Secondly: Peirce distinguishes between the formal strength of an argument and its persuasive power. An abduction, for instance, is a weak kind of argument but may, in a given case, appear much more plausible than deduction. I may, for instance, become much more ready to believe that I will die after having witnessed my cat dying than by telling myself that I am human and all humans die. Thirdly: Although deduction, due to its very form, offers the highest kind of certainty possible, this certainty is never an absolute one because any deduction will be based on premisses which process human experience, and human experience may err. This is why Peirce adheres to what he calls fallibilism: "[...] absolute certainty can never be fully attained [...]"¹⁶. "[...] we know nothing with absolute certainty of existent things [...]"¹⁷

¹⁶ CP 7.163 (1901).

¹⁷ CP 6.346 (c. 1909). – CP 5.157 (1903): "Nor can I pretend to absolute certainty about any matter of fact." – CP 7.569 (c. 1892): "[...] no experiential question can be answered with absolute certainty [...]" – CP 5.166 (1903): "I certainly think that the certainty of pure mathematics and of all necessary reasoning is due to the circumstance that it relates to objects which are the creations of our own minds, and that mathematical knowledge is to be classed

4. Certainty and religions

What are the implications of this approach to philosophy of religion? Let me conclude by mentioning just five brief points which touch upon the self-understanding of religion within a secular society.

(a) Peirce's semiotic system warns against the concept of 'absolute certainty'. If this applies to the area of religion, too – and so it does –, then religious certainty will have to be understood as relative certainty at the utmost, and religions will have to cut down on their ideas of unshakeable and eternal truths.¹⁸

(b) Peirce's semiotic system makes room for the distinction of belief and certainty. This distinction will allow diverse religions to stay with their conflicting truth claims in form of 'beliefs', without, however, having to impose these truths on others by claiming strong forms of 'certainty' for them, or even any 'certainty' at all. The differentiation between belief and certainty is part of the self-enlightenment of religions, and a necessary requirement for peaceful convivence in pluralistic societies.

(c) The claim that beliefs may be 'rational' or legitimate even if not based on arguments, and that arguments may be 'rational' or legitimate even if not based on deductions or inductions, will allow religions to defend their truth claims in accordance with, albeit weak, standards of rationality.

(d) Likewise, the insistence upon the meaning of beliefs being spelled out by actions will allow religions to claim a structural resemblance between religious beliefs and non-religious ones.

(e) If liberty is to be preferred over certainty, then the value of religions in their variety will be that they contribute to the wealth of possibilities of how to interpret one's life experience.

Peirce's own idea of religion, laid down in his 1908 essay "A Neglected Argument for the Reality of God", matches these criteria, and his optimism regarding the future self-development of religion has never wavered: "Let science and religion each have stout faith in itself, and refuse to compromise with alien and secondary purposes, but push the development of its own thought on its own line; and then, when reconciliation comes -- as come it surely will

along with knowledge of our own purposes."

¹⁸ Cf. CP 1.151 (c. 1897): "To return to our friends the Conservatives; these ladies and gentlemen will tell me this doctrine of fallibilism can never be admitted because the consequences from it would undermine Religion. I can only say I am very sorry. The doctrine is true; -- without claiming absolute certainty for it, it is *substantially* unassailable. And if its consequences are antagonistic to religion, so much the worse for religion. At the same time, I do not believe they are so antagonistic. The dogmas of a church may be infallible -- infallible in the sense in which it is infallibly true that it is wrong to murder and steal -- practically and substantially infallible. But what use a church could make of a mathematical infallibility, I fail to see." – CP 1.8 (c. 1897): "Religious infallibilism, caught in the current of the times, shows symptoms of declaring itself to be only practically speaking infallible; and when it has thus once confessed itself subject to gradations, there will remain over no relic of the good old tenth-century infallibilism [...]."

-- it will have a positive value, and be an unmixed good.”¹⁹

¹⁹ CP 6.603 (1893).