Iteration and the Peircean Habit*

Introduction

Implicit in Peirce’s understanding of the semiotics of habit is a general model or typology of iteration. Since semiosis encompasses cognition and language (Nesher 1994), Peirce’s account of habit models not only verbal iteration but also iteration as a cognitive or conceptual phenomenon. The fact that a framework for understanding cognitive and linguistic iteration is inherent in the Peircean habit should hardly be surprising since Peirce intended his semiotic to be a “real science of sign phenomena” (Short 1981, 197) and his phenomenological categories of Firstness, Secondness, and Thirdness to be ubiquitous and directly observable elements (or modes of being) in the sign-perfused universe (CP [=Peirce 1931-35; 1958] 1.23, 5.41, 5.121).

In this paper, I intend to sketch the model of iteration implicit in Peirce’s discussion of habit or Thirdness, or more specifically in the relations between the levels of Secondness and Thirdness within a habit. In brief, Peirce implies the necessary existence of two poles of iteration: iteration at the level of Secondness, or what I will call simple iteration, and iteration with respect to Thirdness, or what I will call habitual iteration. Simple and habitual iteration do not represent discrete categories mutually exclusive of each other; a Peircean account of iteration presumes a continuum running between the poles and therefore the potential of growth from one pole (simple iteration) to the other (habitual iteration). Through this typology, I will be arguing that the two kinds of iteration are reflections of the more general distinction which Peirce makes between Secondness and Thirdness.

Passing from theory to practice, I will then attempt to show the usefulness of the Peircean typology for making sense of iteration in human conceptualization, generally speaking, and in language, in particular. In treating iteration in language, I will limit myself to a consideration of some aspects of the behavior of a verb form in Czech which I have previously argued (Danaher 1995, 1996) must be understood, first and foremost, as a habitual verb in the Peircean sense of habit.

The Peircean Habit: from Simple to Habitual Iteration

Habit, as a semiotic type with different system-specific realizations, is obviously
central to Peirce's semiotic in a number of respects, and I will limit my discussion of it here to those elements of a definition that bear directly on a Peircean model of iteration.

Peirce defined habit as a generalizing tendency (CP 1.409, 6.204, 7.515) or general law, "such that on a certain kind of occasion a man will be more or less apt to act in a certain general way" (CP 2.148). All things have a tendency to take habits (CP 1.409), and habit-formation is not limited to human semiosis (CP 5.492). Savan (1988, 11–2) aptly summarized Peirce's habit in the following words:

A habit is formed as a general pattern of action and emerges over a period of time out of actions which are irregular, random, and without design. For example, the habit of smoking a cigarette after dinner may develop out of occasional and infrequent acts. The habit, once it is real, is not a single entity, like the cigarette. Nor is it a specific act, like lighting the cigarette. Nor yet is it a particular finite series of such acts.

As the citation from Savan brings out, a habit is a type which depends upon specific (actual) tokens to instantiate it, although as a type it is more than the mere sum of its individual tokens; the tokens are taken as background for the foregrounded assertion of a general rule. In other words, a habit is a gestalt with complex structure: a number of more or less identical tokens (acts of smoking a cigarette) are interpreted as exemplifying a general tendency or law (being a habitual smoker), the validity of which is not actual but potential. In simple terms, it could be said that a habit consists of two levels: the level of actual tokens and the more general level of the law which patterns or systematizes the individual tokens and accounts for them as instances of a regular tendency. Savan (1988, 45) illustrates these two levels in the opposition between musical notes and a melody:

The habit does not exist at any one moment, as does a musical note. Like a melodic pattern of notes, the habit spans a succession of momentary occurrences. The habit, unlike an occurrence, is real through memory and expectation. The identity of the habit lies in its pattern of succession.

As a general rule, a habit is defined with reference to the indefinite future. As Peirce wrote (CP 2.148, see also 1.409):

> [E]very habit has, or is, a general law. Whatever is truly general refers to the indefinite future; for the past contains only a certain collection of such cases that have occurred. The past is actual fact. But a general

(fact) cannot be fully realized. It is a potentiality; and its mode of being is esse in futuro. The future is potential, not actual.

Peirce makes the same argument in associating habits with the subjunctive conditional 'would-be'. Conditional propositions are not limited to actual instances (tokens): "[N]o agglomeration of actual happenings can ever completely fill up the meaning of a 'would-be'" (CP 5.467; see also 2.664, 2.667, 5.400, 5.510).

To return to the example of a smoker: "Even if the habitual after dinner smoker were to die this afternoon, it must be true that he would have, probably, smoked a cigarette after dinner" (Savan 1988, 11–2).

A general rule states that something would occur given certain circumstances; it defines with regard to the indefinite future. Actual occurrences of the event have probably already taken place, and these are the tokens which support the generalization about habit. This is another way of saying that a habit is alive through its instantiations, although it is not reducible to a finite set of them: "[I]f the actual concrete actions in which the habit is embodied did not exist, the habit would not be real" (Savan 1988, 45). As Peirce notes, the number of tokens necessary to support a habit need not be large, and habits can vary in strength (and endurance) depending on how often they are instantiated (CP 5.477). The general character of habits also implies that they need not be entirely stable to be real: "[E]ven when a habit is stable, it usually permits exceptions and deviations, provided these do not become themselves further habits. So the probability of habitual actions may vary while the habit they express remains" (Savan 1988, 12).

The two levels implied in the complex structure of a habit (the type and its tokens) are obviously echoes of Peirce's phenomenological categories of Secondness and Thirdness. Secondness is associated with actual occurrence (CP 1.358), the here and now without regard to generality or the future (CP 1.23, 1.419, 6.455), reality and experience (CP 1.324–5, 1.342). It is anti-rational since it "consists in arbitrary brute action upon other things [and] to rationalize it would be to destroy its being" (CP 6.342). Thirdness is being in general or law as potential which goes beyond a mere collection of facts (CP 1.420, 6.20), and, as such, its essence is in the future (CP 5.93–6). Since Peirce's categories are hierarchically structured, Thirds contain Seconds (CP 1.353), and a habit as Third therefore states that future facts of Secondness will take on a general character. As Shapiro (1983, 68) has written:

Habits are tendencies to act in this or that manner under specifiable conditions; they are thus at one remove from the realm of the here and now or Secondness. Habits govern—in the manner of leading principles—ac-
tivities, which are Seconds...and this regulative relation has built into it the attainment of some goal.

Hierarchization also implies a potential for growth from Seconds into Thirds or from actual occurrence(s) into a general tendency to occur. Rosenthal (1983, 317) has explained this potential in cognitive terms:

[The conceiving mind cannot, by the very nature of meaning, be tied down to a consciousness which apprehends actualities only, for the implicit content of our concepts includes meaningful assertions about potentialities which reach out beyond that which will ever be actualized. Embodied in the actuality of our conceptual structures as dispositional, then, is a sense of a reality which transcends actual occasions of experience.]

The distinction between Secondness and Thirdness is also reflected in the distinction Peirce makes between efficient and final causation. Habits "operate in complete agreement with Peirce's concept of final causation" (Shapiro 1991, 39) in the sense that the whole calls out its parts or the parts are perceived through the filter of the whole (CP 1.211, 1.220). The instantiations of the habit are understood via the general rule which defines the habit. Efficient causation, on the other hand, operates when the mere sum of the parts is equivalent to the whole (CP 1.212, 1.220). The whole is merely potential, and the individual parts (not yet perceived as even being parts) are evaluated merely as they are. More or less the same distinction is sometimes made in the contrast between gestalt structure (Lakoff 1977, 246; see also Antilla 1991, 235 and CP 5.88) and building-block structure (Lakoff 1987, 284).

For the purposes of a Peircean typology of iteration, the two levels implied in the structure of a habit-gestalt, as reflections of Secondness and Thirdness and the relationship between them, are also those elements which semiotically structure the two poles of iteration. Any iterated situation minimally implies a series of events which are similar or even identical to each other in one or more relevant respects. There are two possible construals of such an iterated situation, and these construals define the poles of simple and habitual iteration and the relationship between them. In simple iteration, a series of events is evaluated at the level of Secondness; in other words, simple iteration is defined by the actual occurrence of individual events. A building-block interpretation is applied to the repeating occurrences such that the potential relations which may exist between them are not reported; in simple iteration, focus is on the mere existence of the entities or occurrences. Iterated events evaluated at the level of Secondness are consequently individual occurrences considered in isolation from each other. As Peirce himself (CP 7.538) said of a repeating event evaluated with regard to Secondness: "If it is repeated, the repetition is another occurrence, no matter how like the first it may be. It is anti-general." Illustrations of simple iteration include the following: a series of musical notes (which are not interpreted as comprising a melody), isolated acts of smoking (which are not attributed to a habit of smoking), and individual drinks of alcohol (which are not construed as tokens of a dependency).

If simple iteration reports actual facts, then habitual iteration focusses attention on the relations between those facts by construing them as tokens of a broader type or as instantiations of a general rule. Habitual iteration illustrates a general law which governs future facts: additional notes following a melody (a musical habit) will tend to be interpreted as part of the melody, just as cigarettes smoked by a habitual smoker or drinks drunk by an alcoholic will be seen as supporting a general tendency. The tokens of the rule or tendency (the notes, the cigarettes, the drinks) are necessary to the habitual interpretation, but not the focus of the habitual assertion. Thus habitual iteration, as a Third or general, presupposes simple iteration, as a Second or actuality, but is not limited to it. Simple iteration can therefore potentially be interpreted habitually given a change in perspective. In other words, simple and habitual iteration exist along a continuum from a simple succession of mechanical, isolated, and dead acts of Secondness to rational, related, and meaningful construals of Thirdness (Savan 1988, 62). Given these definitions, it follows that simple and habitual interpretations necessarily have different cognitive and communicative functions.

An example of construal of a succession of similar entities at the level of Thirdness is provided in language by the structure known as the collective noun. Understanding a succession of professors at a university as a faculty is to move from the level of simple iteration, the individual professors themselves (a plural count noun), to habitual iteration, the professors as seen through the lens of the collective which they comprise but the scope of which goes beyond the mere sum of the individuals involved (a collective noun). Similarly, an orchestra is composed of a series of musicians who function, not in mechanical isolation from each other, but as one complex gestalt.

The semiotic distinction evident in how we understand collective nouns is pervasive in human conceptualization, which is natural given that it is a reflection of the hierarchical relationship between the phenomenological categories of Secondness and Thirdness. To conclude this section, I offer some examples of the conceptualization of repeating entities in various domains, the repetition of which
### Construal as Simple Iteration
- a series of musical notes
- individual acts of smoking
- acts of drinking
- stars in a part of the sky
- a series of headaches
- sexual encounters with someone
- a number of political initiatives
- series of events

### Construal as Habitual Iteration
- a melody
- a habit of smoking, an addiction
- a dependency on alcohol
- a constellation of stars
- symptoms of a brain tumor
- a relationship with someone
- chapters in a book
- taking classes in a degree program
- a political vision or plan
- a narrative or story

This model of iteration implicit in Peirce’s notion of habit is pervasive in human conceptualization; it is not surprising that it is also manifested in various ways in the structure of language. In the next section, I will apply the semiotic topology sketched above to making sense of verbal iteration in language, specifically to a discussion of the semantics of habitual verbs in Czech.

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**Some Aspects of the Behavior of Czech Habitual Verbs**

I have argued elsewhere (Danaher 1995, 1996) that Peirce’s understanding of habit is especially fruitful in accounting for the range of meanings associated with a verb form in Czech which should be considered a habitual verb in the semiotic sense of habit. Habitual verbs in Czech are unprefixes forms derived from corresponding imperfective simplex verbs usually by means of the suffix -va. Verbs of this type must express habitual iteration (or contextualized variations on it), although they are not the only Czech verb forms which can be used to express habitual iteration (the imperfective simplex can denote both simple and habitual iteration). In the analysis which follows, I will focus on understanding habitual iteration as expressed by the Czech habitual verb, and I will show that in contexts which permit either the use of the habitual form or the imperfective simplex form, the former must express habitual iteration, and the latter will tend to be read as an expression of simple iteration.

I have previously demonstrated (Danaher 1996) how the following meanings associated with Czech habitual verbs can be understood as expressions of habit in a semiotic sense: non-actuality (the verbs cannot denote actions in the actual present), iterativity (the verbs must express some degree of iteration), emotional content (the verbs tend to report emotionally-colored situations), negated contexts (negated habitual forms tend to exhibit a different scope of negation from corresponding imperfective simplex forms also under negation), and discourse function (habitual forms are typically used in either discourse-initial or discourse-final positions as introductory or summarizing devices). My treatment here will be devoted to several more nuanced meanings associated with habitual verbs. These meanings include the following: the use of habitals to report indefinite situations or suppositions (as opposed to specific situations or actual fact); the tendency to use habitual verbs to denote abstract or unreal domains; the future orientation of habitual verbs; and the potential for habitual forms to permit the existence of possible worlds which run counter to the basic assertion. Finally, given the ways in which these various meanings are coherent with the semiotics of habit, I will offer an account of the stylistic limitation on the use of habitual verbs in contemporary Czech, a limitation commonly noted by commentators on Czech verbal semantics as well as by Czech speakers untrained in linguistic analysis.

**Definiteness versus Indefiniteness**

Habitual verbs are used in Czech to report indefinite situations; corresponding imperfective simplex forms in the same context tend to be read as reports of defi-
niteness. Consider the following example, taken from one of Havel's essays:

(1) Západoří návštěvníci bývají\textsuperscript{Hab} šokováni, že Černobyl a AIDS tu nejsou zdrojem hrůzy, ale námětem vtipů. (Havel 1989, 118) 'Visitors from the West are (tend to be) shocked that Chernobyl and AIDS are not sources of terror here but the subject matter of jokes.'

In the habitual phrase Západoří návštěvníci bývají šokováni/Western visitors tend to be shocked, the speaker reports a general rule about Western visitors.\textsuperscript{8} The indefinite set of Western visitors is the scope of the assertion. The views of individual visitors from the West are considered as background elements of a broader statement.

In contrast, the same phrase with an imperfective simplex verb jsou/are substituted for the habitual form bývají/tend to be is neutrally read as reporting simple and definite iteration.\textsuperscript{9} The meaning of the whole set of visitors is a function of the definite number of visitors on hand. There is no higher-level evaluation which extends the scope of the assertion from a specific set of Western visitors to the indefinite set of all possible Western visitors. The imperfective simplex verb jsou does not assert a general rule but instead reports a specific fact. The phrase Západoří návštěvníci jsou šokováni could be expressed in English with the definite article: The Western visitors (the ones over there, the ones we talked with last night) are shocked.

A second example, taken from a Czech news magazine, further illustrates the contrast between definite and indefinite readings:

(2) Minulý týden ležel doma s čírkou každý padesátý český občan.... Lékali upozornili veřejnost, že se jedná o počínající epidemie.... Podle statistiky ministerstva zdravotnictví však letosní situace není horší než loni. Čírkop překvapila pouze tím, že přišla tak pozdě: někdy bývá\textsuperscript{Hab} už o vánočích. (Respekt) 'Last week one out of every fifty citizens of the Czech Republic stayed home in bed with the flu.... Doctors advised the public that it looks like the start of an epidemic.... However, according to statistics provided by the Ministry of Health, this year’s situation is no worse than last year’s. This year’s flu has been surprising only in its late arrival: sometimes it is (can be) already here at Christmas.'

In this passage, the habitual form bývá\textsuperscript{Hab}/is (can be), in combination with the quantifier někdy/sometimes, reports the possibility of the flu occurring by Christmas. The evaluation has broad scope and indefinite implications. The same passage with the corresponding imperfective simplex je\textsuperscript{Hab}/is tends to denote a simple, definite fact: the flu sometimes is active by Christmas.

Although the second example does not illustrate the contrast between definiteness and indefiniteness in the sense of the first example (with iteration over a plural subject and the possibility of using or not using an article in the English translation), both meanings are coherent given the habitual character of the Czech verb bývat/to (tend to) be. Since habit is a Third, it is not defined solely by the tokens which instantiate it; genuine habituality requires indefiniteness, although the exact nature of it may be expressed in different ways. With regard to Czech verbs of this type and temporal adverbials, Kučera (1980, 25ff) explained indefiniteness as the inability of the verbs to combine with exact quantifiers; Banfield (1991, 41–2) reached the same conclusion about habitual propositions in French. Peirce’s understanding of habit as Thirdness shows why this is semiotically (cognitively) the case.

These two Czech examples also illustrate the different communicative functions fulfilled by simple and habitual iteration. Evaluation of iterated entities at the level of Secondness requires, at its extreme, specification of a finite set of those entities (a definite number of Western visitors) or, what amounts semiotically and in the context of this discussion to the same thing, objectification or factualization of the information conveyed (the flu does sometimes occur by Christmas, and that is the extent of my statement about it). Evaluation at the level of habit (Thirdness) is accounting for the entities or events as functions of a broader tendency. This is the same distinction we saw conceptually in the different construals of smoking cigarettes, drinking alcohol, etc.

Fact versus Supposition or Hypothesis

Closely associated with the contrast between definiteness and indefiniteness is the contrast between reporting a fact and making a supposition or hypothesis. Example (2) illustrates the shading of a definite into a factual reading or an indefinite into a hypothetical one. When chunks of discourse are examined, it becomes clear that habitual verbs in Czech denote suppositions and imperfective simplex forms in the same contexts tend to report facts. Consider the three examples below:

(3) ...často se říká\textsuperscript{impf}/říká\textsuperscript{Hab}, že poznan o jazyk víc známéžit o jeden život víc. (Čapek 1990, 65) '...it is often said that to know more than one language means to live more than one life.'

(4) Otevřela jsem kabelku, jestli tam nemám prášky, ale...věděla, že žádné prášky s sebou nemám, ale pak jsem si vzpomněla, že Jindra má\textsuperscript{impf}/měla\textsuperscript{Hab} u sebe všelijaké léky.... (Kundera 1967, 282) 'I opened my bag to see if there was anything I could take for it [if I had any
pills], though ... I knew I had no pills, but then I remembered that Jindra always had [has] a whole pharmacy with him.... (Kundera 1982, 238)

(5) Čas od času mám/mívám tend to concretize the situation: something specific and valuable must be learned from the conversations. The habitual verb implies a more general reading: conversations occurred, but the specific details were not necessarily important. Havel used the imperfective simplex, and it is interesting to note that a later sentence in the text confirms the intuitions of the native speakers: "Ty hovory bývají obvykle poučné a člověk se při nich mnohdozví a mnohdozví si uvědomí ('These conversations are usually instructive and one learns and realizes a great deal from them')" (Havel 1989, 51).

In the opposition between fact and supposition, the categories of Secondness and Thirdness are once again reflected. Simple iteration, expressed by imperfective simplex forms, reports actual occurrence of a number of known events which therefore should have real consequences: the maxim is repeated because it is true, the pills are there because the speaker knows Jindra has them, the conversations occur and Havel is speaking about them because of their tangible value. In this way, simple iteration concretizes the discourse. Habitual iteration steps away from the concrete to introduce an abstraction: the maxim is heard but the speaker does not necessarily endorse it, Jindra may have some pills because he carries around a whole pharmacy with him, and Havel occasionally has some conversations with Western intellectuals.

What is particularly interesting about these examples is that usage of a habitual verb has consequences for the interpretation of the whole passage in which the verb is located because of the semiotic baggage associated with habituality. The verbs třikává se, mívá, and mávám, as linguistic forms which express habit, are used in those discourse contexts in which their semiotic character is understood as (more) relevant to the act of communication. As these three examples (along with the two previous ones) illustrate, exactly how the semiotic character of the habitual forms comes across varies from context to context, although the use of a habitual verb in each instance makes sense given the general semiotic nature of habitual iteration as interpretation at the level of Thirdness.

**Real versus Imagined Domains**

Another possible way in which the semiotic characteristics of simple and habitual iteration may manifest themselves is in the distinction between what could loosely be termed 'real' situations and imagined or clearly 'unreal' ones. Since imagined domains are not composed of instances of concrete fact, they are preferably characterized in Czech by habitual verbs, that is, by the iterative verb form most closely associated with abstraction (in a broad sense of the term). In a pas-
sage which contrasts an unreal domain directly with a real one, the latter will preferably be described by means of imperfective simplex forms because this is the iterative form which can express the definiteness and concreteness of simple iteration. I have only one example of this, which is an ambiguous one at best, but I include it to show how the semiotic typology of iteration can account for even the most marginal usages. The example is taken from Kundera's novel *The Joke* and presents contrasting descriptions of people in the realm of fairy tales and in everyday life:

(6) Ještě tak když se lidé mohou přenést v představách do říše pohádek, jsou plni ušlechlitosti, soucitů a poezie. V říši všednědenního života pohřebu naplněni spis opatrností, nedůvěřivostí a podezřelým. (Kundera 1967, 225) 'As long as people can escape to the realm of fairy tales, they are full of nobility, compassion, and poetry. In the realm of everyday existence they are, alas, more likely to be full of caution, mistrust, and suspicion.' (Kundera 1982, 191)

Although responses varied considerably, native informants tended to judge the habitual verb *bývájet* (would) tends to be more acceptable in the first instance because a non-real state of being is described. The habitual form was perceived as better in conveying description of the more hypothetical context. The imperfective simplex *jsou* was judged better in the second case because everyday reality ('všednědenní život') is being described.

It seems rational to view these evaluations as a possible extreme extension of the definite fact/indefinite supposition contrast. This example is somewhat weaker than previous ones, especially considering that Kundera's original text has imperfective simplex in both instances. However, Kundera's use of imperfective simplex in description of the imagined domain, which seems to run counter to native speaker consensus, may be motivated within the overall aesthetic context of the novel, which is after all a commentary on the very real consequences of the communist fairy tale. Whatever the motivation, it does seem plausible to suppose that habitual forms would be preferred, all other things being equal, in a context which is unambiguously hypothetical in nature.

**The Future Orientation of Habitual Verbs**

In my discussions of all the previous examples of the opposition between definite fact and indefinite supposition, I have stopped short of characterizing habitual it-

eration as an expression of the counterfactual 'would-be'. However, I could have as easily argued that the indefiniteness of habitual propositions follows directly from the would-be nature of habit as Peirce understood it. Another way to characterize Peirce's understanding is to say that habits define with a view toward the (indefinite) future: a habit is a generalization from tokens to a type or from a finite sample to probable future occasions. Earlier I illustrated the would-be character of habit in various forms of conceptualization.

The counterfactual nature of habitual assertions in language has been remarked upon (without reference to Peirce's semiotic) by other researchers. Brinton (1987, 206) writes: "The habitual not only represents past and present actions but expresses a 'presumption of future continuation'." Collective nouns, which I have argued are the nominal equivalent of habitual iteration, also have "continued existence in the future" (Brinton 1991, 63). Carlson (1981, 43) has argued along similar lines that habitual interpretation "adds a modal or counterfactual condition over and above iterativity: a habit is assumed to be upheld in a range of favorable counterfactual circumstances." In this statement, Carlson implies the existence of both simple and habitual iteration as semiotic poles.

The Czech data strongly bear out the counterfactual nature of habitual iteration. Recall example (1) in which the imperfective simplex verb tends to be read as a concrete statement about a definite set of Western visitors, while the habitual form hypothetically asserts that the reaction of a definite number of visitors is typical of the reaction of the whole potential class. If a Westerner were to visit (now or in the future), it is probable that he or she would be shocked. Consider two more examples which illustrate the point:

(7) Pomyslíš jsem na to, že se sice z infarktu pravědne obviňuje, ...ale že to už potom bude docela jiný život...a předpadl musejí[,] že osud často končí se daleko před smrtí a že Jaroslav ovšem je u konce. (Kundera 1967, 312) 'And what I said to myself was that although he would probably get over his heart attack...he would lead a very different life...and I was struck by the thought that a person's destiny *often ends* before his death and that Jaroslav's destiny had come to an end.'

(Rybakov 1987, 357) ‘Varja decided to get to Nikolskaya by cutting through the courtyards between the buildings…. She must not take a suitcase. Everything she needs she’s wearing…. And it’s a good thing that she didn’t take a suitcase—the passageway between the buildings was closed. Varja had forgotten that all the passageways between the buildings on the Arbat had been recently closed off. The Arbat had become a closely watched street—Stalin rides through here on the way to his country dacha.’

In example (7), the habitual form končiváti ends (tends to end) reports a broad assertion based on one specific instance. The proposition is applicable to the indefinite set of all people: there is a degree of probability that any person’s destiny will end before that person dies. Jaroslav’s situation is a concrete illustration of the larger hypothesis. In example (8), the habitual verb jezdívatí/he rides (tends to ride) implies that Stalin rides through the Arbat on the way to his dacha. In other words, if Stalin were going to his dacha, he would probably ride through the Arbat, and therefore the passageways have been securely blocked off. The habitual form reports a probable future occurrence or general rule in a would-be mode.

The would-be nature of habitual verbs is not limited to usage in present morphology. Morphologically past examples also express a counterfactual nuance, although within the definite confines of a past block of time. I will illustrate this with one example (taken from Čapek’s account of Masaryk’s life), although many others could be discussed:

(9) Chodíval HAB jslem na Hampstead Heath—někdy i v noci, když jsem měl starosti, například když šlo o separační mír s Rakouskem. (Čapek 1990, 167) ‘I used to walk about Hampstead Heath, sometimes even at night when I was worried, when, for instance, there was talk of a separate peace with Austria.’ (Čapek 1934, 248)

In this example, Masaryk, looking back on the time he spent in London during World War I, generalizes from specific walks he took on Hampstead Heath (one of which is described) to a habit of taking such walks when he was worried. That is, if Masaryk were worried, he would probably have been found walking on Hampstead Heath. The habitual form has a nuance of indefinite future orientation over a time period in the past: given certain conditions, this or that would have been the result. The habitual verb therefore does more than merely report the past existence of concrete instances of Masaryk’s walks.

The connection between iteration and the conditional ‘would-be’ has been explicitly noted by scholars writing about languages other than Czech (and without reference to Peircean theory). For example, Aronson (1977, 14ff) points out that the same Bulgarian verbal form can denote either an aspectually iterative situation or a modal conditional. He also notes that the same thing can be said of English, Serbo-Croatian, and Hebrew, and he hypothesizes that the iterative/conditional connection is a universal: “The connection between these two functions is so close and so widespread as to lead one to believe that we are operating with a universal” (15). In his article on the Slavic frequentative habitual (F-HAB), Mønnesland (1984, 73) draws a similar conclusion:

The F-HAB construction…is not in itself modal. It is non-actual but not non-factual. There is, however, no sharp division between the F-HAB construction and related modal sentences, expressing prediction, supposition and potentiality. This is why modal verbal forms are used to express F-HAB: future, conditional, imperative.

I would point out that the iterative contexts which both Aronson and Mønnesland use for their arguments are clearly examples of habitual, and not simple, iteration. As should be obvious by now, the connection between habitual iteration and the modal conditional is easily accounted for in Peirce’s semiotic treatment of habit. That one and the same verbal form in some (if not many) languages can express either meaning makes sense because, semiotically (cognitively) speaking, there is little difference between habitual iteration and a conditional proposition.

I would add that the phenomenological category of Thirdness (and its relation to Secondness) is reflected not just in the patterning of verbal forms in some languages but also in the organization of other linguistic subsystems. A particularly relevant example of this is the distribution of the negative particles oV and μη in Attic Greek. 10 The example is relevant to the typology of iteration because the particles pattern, if not perfectly then at least to a remarkably consistent degree, based on the same distinction between Secondness and Thirdness which I have been using to discuss simple and habitual iteration. The negative particle oV is used in direct questions when the expected answer is ‘yes’, that is, when the information is assumed to be factual (Smyth 1956 [1920], 2651); to contradict or deny factual statements (2688): τα oux oVra/that which does not actually exist, independent of any opinions about it; in relative clauses with definite antecedents (2705); and with participles and an article when definite persons or things are meant (2734). In other words, the particle oV generally tends to combine with evaluations at the level of Secondness (fact, definiteness, actuality). On the other hand, the negative particle μη occurs in contexts associated with Thirdness (abstraction, indefiniteness, supposition, sub-
junctivity). It is specifically used in answer to direct questions when the expected answer is 'no', that is, when the speaker is less than certain about the validity of his information (2651); to contradict or deny statements of will or thought (2668): το μου ναντολ/that which is regarded as not existing in a writer's opinion; in relative clauses with indefinite antecedents (2705); with participles that have conditional or general force (2702); with the subjunctive (2702); with conditional statements (2689, 2705); and generically with nouns and substantivized adjectives (2733): οι μη πληνοι/whoever are not rich (the non-rich).

What the Greek examples further show is that the semiotic categories of Secondness and Thirdness are realized in many forms, both conceptually and linguistically. The distribution of the two negative particles is parallel to the opposition between simple and habitual iteration. Evaluation with regard to Secondness is judgment about a definite set of facts or actual instances; evaluation at the level of Thirdness is conditional generalization or hypothetical supposition about a broad type.

**Habitual Verbs and Other Possible Worlds**

As I mentioned in my earlier definition of the Peircean habit, habits do not have to be perfectly stable to be considered real. Savan (1988, 12) notes that habits in general permit isolated exceptions and deviations, and Tyvaert (1987) has developed a model for understanding habituality in language in which a habit is necessarily open-ended and tolerant of counter-examples. These conclusions have important implications for a treatment of habitual iteration in Czech. Simple iteration reports the existence of more or less definite entities or situations; habitual iteration construes these entities or situations as background to a broader generalization. But habitual iteration does not require that only those entities or situations which support the habit exist. Habitual iteration allows for the existence of other possible worlds in which the habitual proposition does not hold.

This is one way to account for the behavior of Czech habitual verbs under negation since negating a habitual assertion does not result in the absolute negation of all occasions or entities which support the proposition (for a more detailed account of this, see Danaher 1996, 121ff). This feature of habitual iteration also motivates the use of habitual verbs in other contexts. In example (4), the habitual verb měvá/he tends to have makes it possible that Jindra may not, in fact, have the pills that are being sought. The habit denoted by měvá is subject to some contradiction with preservation of its general meaning, and this facilitates reading the habitual phrase as a supposition or hypothesis rather than a definite fact.

Consider also the example below: 11

(10) Naš brankář chytá impf./chytává hab lépe. 'Our goalie keeps/ tends to keep goal better.'

It would be odd to utter the sentence with the imperfective simplex form chytá/he keeps goal during a soccer game in which the goalie in question was performing poorly. The imperfective simplex form in iterative contexts does not neutralize allow for the existence of occasions which contradict the basic assertion. The sentence with the habitual form chytává/he tends to keep goal might, however, be uttered if the goalie in question was having a rotten game. Implicit in the habitual form is the possibility that there are occasions when the proposition does not hold. This implication does not, however, undermine the broad assertion of the habit itself.

Consider also one more context in which the potential existence of other possible worlds influences meaning and usage: 12

(11) Dítě chodi impf./chodi vá hab do školy. 'The child goes to school.'

In regard to this example, Kopečný (1962, 20) notes the following: 'If parents answered the question 'And does your child go [chodi, imperfective simplex] to school?' with the [habitual] form chodi vá, it would certainly be a suspicious and evasive answer.' However, Kopečný's only way of accounting for this contrast is to argue that the habitual chodi vá, in opposition with the imperfective simplex chodi, expresses irregular iteration ('nepravidelná občasnost'), and therefore is not pragmatically appropriate as an answer to a question about attending school.

The contrast can be more completely understood within the framework of the analysis presented here. The question "A chodi dítě do školy/And does your child go to school?" is an excellent example of simple iteration: it is pragmatically expected that a child attends school regularly, that is, on all possible occasions when the school is open, barring illness or other extraordinary circumstances. With the form chodi there is no implication of the possible existence of other occasions when the child does not attend school as there is with the corresponding habitual form chodi vá. Therefore, in response to the question about school attendance, an answer with the habitual form is, pragmatically speaking, strange. The parents presumably would not want to offer a hypothetical supposition about their child's attendance at school; they would rather state a more or less definite fact. Using the habitual verb to answer the question is, under normal circumstances, unacceptable because it implies that there are occasions when the parents are not sure whether or not their child is at school. As in other contexts, the imperfective simplex and the habitual forms have very different communicative functions.
Stylistic Limitations on Usage of Habitual Verbs in Czech

The opposition between simple iteration as expressed by imperfective simplex verbs and habitual iteration as expressed by habitual verbs in Czech, which is manifested in the contextual usages discussed above, may also be at the root of the stylistic differences between the two forms. A clear majority of native speakers reported that habitual verbs tend to be avoided in contemporary spoken Czech; in everyday language, the imperfective simplex is preferred to the habitual even in expressions of habituality. In her study of Czech and Russian aspect, Eva Eckert (1984, 78) writes: “All the -tva-/-tva- [i.e., habitual] verbs are infrequent in contemporary spoken Czech.” Habitual verbs therefore tend to be perceived as literary (and sometimes archaic) forms. As an illustration of this, consider the passage below:

(12) Mé názory o socialismu vyplývají z mého pojmou demokracie; revoluce...muže někdy rušit špatné věci, ale netvoří/netvoříva dobřích a trvalých. (Čapek 1990, 126) ’My opinion of socialism is derived from my understanding of democracy. Revolution...can sometimes destroy bad things, but it [probably] doesn’t create good and lasting things.’

With this example, speakers indicated a preference for the habitual form netvoříva/probably doesn’t create because of the out-dated genitive morphology of the adjectives in the scope of negation. The archaic adjectival form correlates with an archaic (or stylistically marked) verb form.

This interpretation of habitual verbs as stylistically marked and literary forms is coherent given my previous discussion of some aspects of the usage of these verb forms. In example (6), the habitual form is used to describe the characteristics of hypothetical people in a fairy tale realm while the imperfective simplex with a habitual reading is preferred in a description of people in everyday life. In all the examples I have introduced, the imperfective simplex verb, in direct opposition to the habitual form, correlates strongly with definiteness and fact while the habitual verb reports indefiniteness, supposition, and abstraction. Because of this, habituals tend to be used in literary Czech (‘spisovná čestina’) and avoided in spoken Czech (‘hovorová čestina’). Since the written language tends to be the primary locus of abstract or hypothetical discourse while the spoken language is the source of commentary on real, everyday existence, the stylistic marking of habitual verbs makes a great deal of sense.

The use of the imperfective simplex in iterative contexts to express simple iteration (and therefore to imply definiteness, fact, or specificity) is not surprising given the function of the imperfective form in non-iterative contexts. In contrast to the habitual form, the imperfective simplex can denote actual events: David právě teď pisal článek/Right now David is writing an article. The habitual verb cannot combine with adverbials indicating an exact moment in time: *David právě teď psát článek* is not a well-formed sentence. The imperfective simplex form, then, is already associated with definiteness, fact, and the immediacy of everyday perception. It seems only natural that, in iterative contexts, this form would generally be used to express these very same conceptual features in a way appropriate to the iterative context.

To understand this more clearly we might reconsider example (10) about the soccer goalie’s performance in front of the net. In the version with the imperfective simplex chytá, the meaning of the sentence is ambiguous: it could refer to the actual behavior of the goalie during a game, or it could be a general statement of the goalie’s abilities. In other words, if two people are watching a soccer game and one of them says, “Náš brankár chytá lepe,” two meanings are possible: our goalie is goal-tending better (right now), or our goalie keeps goal better (in general). In the same context, the habitual form, at one remove from Secondness, asserts only generality: the statement is independent of the goalie’s performance in isolated games.

The imperfective simplex form is therefore strongly associated with actuality and immediate perception: its primary function is the denotation of events occurring at the moment of speech. In iterative contexts, in which an actual present is impossible, the imperfective simplex retains its association with immediacy in its tendency to express definiteness, fact, and specificity and to be used in reference to everyday situations. In this regard a final example is instructive:

(13) Další filozofické vlivy na mne? Známe: Comte, Hume, Mill; přitom se němí zapomenout, že na nás hlídá autori, se kterými nesouhlasíme. (Čapek 1990, 76) ‘Other philosophers who influenced me? In particular Comte, Hume, and Mill. And it must not be forgotten that persons and writers with whom we disagree also have influence upon us.’

The habitual verb in this example is appropriate at least in part because the information contained in the statement is not a matter of everyday knowledge or easily concluded from one’s normal experiences. In fact, just the opposite is true. Masaryk himself (with the help of Čapek) points out that we tend to forget that we are influenced also by people with whom we disagree. The habitual form marks
the information as unexpected, as more theoretical and at some remove from everyday understanding. Such a marking is consistent with the stylistic limitations on the usage of habitual verbs and with their general semiotic character as expressions of habit.

Conclusion

In this contribution, I have attempted to flesh out a general model of iteration which is implied by the semiotic (conceptual) reality of both actualities and future potentialities and the hierarchical relations between them. I have argued that this model is useful in making sense of iteration in both human conceptualization, broadly speaking, and in language.

As regards the latter domain, Czech is a particularly good test case of the model because it boasts an easily identifiable and productive verb form which is strongly associated with what is semiotically involved in any genuine habit. To understand the range of meanings associated with this verb form, we must conceive of it as a linguistic sign for the expression of what I have called habitual iteration. This is not to say that every usage of a habitual verb in Czech expresses the full semiotic complex of habituality, but that the verb is used in those discourse contexts in which habitual evaluation is communicatively effective. Exactly how habitual evaluation is contextually manifested varies given the interaction of the meaning of the habitual form with other discourse parameters, and I have illustrated and explained only a few of the contextual manifestations here.

Since the typology of iteration I have presented here is grounded in the phenomenological categories of Secondness and Tirdness, which are two of the "ubiquitous elements" directly observable in any real phenomena (CP 1.23, 5.121), it should be applicable generally, that is, not only to the limited cases which I have managed to consider here. This does not mean that all languages necessarily express iteration in the same way that Czech does (which would be a patent untrue claim) but that the hierarchical opposition between Secondness and Tirdness, and its cognitive realization in simple and habitual construal, ought to provide a general framework for making sense of the myriad ways in which iteration is actually expressed in different languages, and for grounding these various linguistic forms of organization in fundamental semiotic principles.

Endnotes

1 That habit is a generalization from tokens to a general rule leads to the conclusion that habit is the result of inductive inference (CP 2.643, 5.97). Habitual propositions in language may be due to induction (generalizations with regard to existing tokens) or abduction (hypotheses). In this paper, I will not pursue the consequences of this distinction for analyzing the expression of habituality in language.

2 For a discussion of multiple interpretations of a minimal situation in terms of semiotic theory, see Rhetoré 1990, 124ff. For a cognitivist take on alternate construals of the same situation, see Langacker 1987, 107ff.

3 Brinton 1991 explores the similarity of habitual propositions and collective nouns as an extension of the mass/count distinction applied to verbal aspect.

4 Some cognitive linguists define what amounts to the same distinction as a multiplex to mass image-schema transformation: "Imagine a group of several objects. Move away (in your mind) from the group until the cluster of individuals start to become a single homogeneous mass. Now move back down to the point where the mass turns once again into a cluster" (Gibbs and Colston 1995, 350–1). Unlike the cognitive interpretation, Peirce's understanding of the 'multiplex to mass transformation' is phenomenologically grounded and in that sense resonates throughout semiosis (cognition and language).

5 Exceptional verbs without the -va- formant do exist. See Danaher 1996, 129 (note 1). Russian has a morphologically similar verb form, although it is characteristic of older and sub-literary language (Mønnesland 1984, 59; Kučera 1981, 177).

6 The discourse function of habitual verbs agrees with Thelin's (1994, 268–9) conclusion that time-related events represent Secondness and tend to be foregrounded in discourse while non-time-related events mostly conform to Tirdness and appear in the background.

7 One of the more interesting meanings associated with habitual verbs in Czech is their tendency to express, in past morphology, a distant past (see Kučera 1981). This means that the Czech verb form, in past morphology, behaves very much like the English habitual paraphrase 'used to'. The tendency of verbs or verbal expressions such as these to express a distant past is coherent with an inter-
pretation of them as semiotically habitual forms, although the argument for this falls outside the scope of this paper. See Danaher 1995.

8 Note that the iteration in this example occurs over the plural subject. Habitual verbs in Czech exhibit iteration over a plural subject, a predicate (or temporal adverbal), and even over a plural object (Kučera 1981). Grounded in semiotic categories, the Peircean typology of iteration is generally applicable to all these situations.

9 Judgments of this example and the other examples to follow are gleaned from comments by a series of Czech native speakers who were asked to explain how they interpreted passages with a habitual verb form and then the same passages with a corresponding imperfective simplex form substituted for the habitual one.

10 My information on Attic Greek is taken entirely from Smyth 1956 [1920]. References are made to section number.

11 This example, but not the analysis which follows it here, is cited from Němec 1958, 197.

12 The first of these is brought up in Kopečný 1962, 20. The second is mentioned in Kopečný 1962, 33 and Poldauf 1964, 48–9.

13 This distribution is, of course, not set in stone. Many of the native speakers interviewed were in their late teens and early twenties, and I noticed a strong tendency for them to parrot back to me black and white explanations of the distinction between imperfectives and iteratives/habituals (that is, ‘neakutální násobená slovesa’) that had been learned in school. Although admittedly I have no statistics, it seems to me that it would be more accurate to say that habitual verbs occur in discourse contexts which require more or less formal hypothesizing (whether in literary or spoken Czech) as well as in other contexts in spoken Czech in which habituality must be made explicit and in which an imperfective simplex form is not always communicatively adequate. On the other hand, it also seems that certain features associated with the notion of habituality are coming to be seen as the prototypical meanings of these Czech verbs (e.g., emotional coloring and expression of a distant past for which the speaker is nostalgic), and perhaps this is indicative of a general process of reinterpretation of their semantics.

14 The absolutely pure manifestation of semiotic categories in language and cognition is not to be expected. For a clear example of the interaction of various semiotic parameters in language, see Dressler 1995.

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Works Cited


