surface form is realized as /o/, as in the Immediate second person acting on third singular for *wâpamihkok*, 'witness them, y'all!'

Morphology Summarized

Morphologically, and in particular from a structural point of view, it is obvious that the Independent and the Conjunct have similar paradigmatic shapes: they each mark for the same persons and make use of similar prefixes (though the Conjunct does so more uniformly than the Independent) and suffixes to mark these persons. Conversely, the Imperative exhibits a far more restricted paradigm: among actors it marks only for second person and makes no use of person prefixes. Further, while the Independent and the Conjunct can occur in any verb class, the Imperative and VIIs are mutually exclusive. These factors, at least on their own, suggest an ontology that place the imperative separately from the Independent and Conjunct, which are more similar to each other. This is illustrated in Figure 2.2.

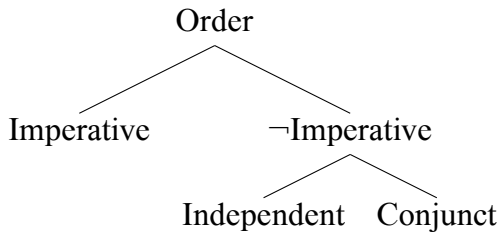

Figure 2.2: Morphological Ontology

As will be seen throughout the rest of this chapter, this pattern of two orders being similar while the remaining one stands apart is pervasive through various levels of representation. This poses difficulty for creating a description or analysis of Order as a unified tripartite system, as one order seems to act substantially different from the others.

2.3.2 Syntax

Progressing from Morphology, I will now discuss the syntax of the three canonical Nêhiyawêwin Orders. The syntactic differences between the Independent, Conjunct, and the Imperative orders are best described by Cook (2014). Although Wolfart (1973) touches on these differences, he does so without great detail. Wolfart (1973) mentions that while the Imperative and the Independent can stand alone (without a prior clause or referent), the Conjunct often represents some form of subordination (which requires another clause on which to depend). Further, he describes each of his four kinds of Conjunct forms as follows: the Simple Conjunct (without IC or a subjunctive suffix) generally follows future markers or conjunctions such as *nawac*, 'should', or *pitanê*, 'would that/may'; conversely, the Changed Conjunct (with IC but not a subjunctive suffix) indicates subordination with little other syntactic restrictions; the Iterative Conjunct (with both IC and the subjunctive suffix) generally occurs in narrative and participial clauses, and finally, the Subjunctive Conjunct (without IC but with a subjunctive suffix) represents some sort of conditionality and often futurity (Wolfart, 1973, 46). Similarly, Cook details the syntactic distribution of the Conjunct order, explaining like Wolvengrey (2011), that the Conjunct can occur in subordinate (i.e. dependent clauses) (2014). In particular, Cook describes the Conjunct as *mostly* occurring in these subordinate clauses, but with her Changed Conjunct_1 class as additionally being possible in matrix clauses. A summary of Cook's Conjunct subtype distinction is found in Table 2.21 (2014, 125).

Table 2.21: Description of Conjunct Orders (*adapted from Cook* (*2014, 125*))

Submode	Subtype	Form	Matrix	Subordinate
Changed	Changed Conjunct_1	ê-apiyân	✓	✓
	Changed Conjunct_2	kâ-apiyân	✗	✓
	Iterative	êpiyâni	✗	✓
Unchanged	Simple	ka-apiyân	✗	✓
	Subjunctive	apiyâni	✗	✓

Although Cook explicitly does not discuss the Imperative, its syntactic distribution is similar to that of the Independent. Cross linguistically, it has been reported that imperatives 'tend not to occur as dependent clauses' (Sadock and Zwicky, 1985, 174). Wolfart (1973) mentions that the imperative is often, but not exclusively, used along side a conditional clause, but in his examples, he gives only instances where the imperative verb is used in a matrix clause that contains a conditional subordinate clause. Alternatively, Lakoff (1984, 476) contends that Imperatives *can* occur in subordinate clauses provided the subordinate be introduced by *because* and the imperative actually convey a statement rather than an order. It is worth noting, however, that the evidence is provided for English, are not based in corpora or acceptability-judgement studies, and that the resulting 'grammatical' sentences (e.g. *I'm staying because consider the girl who pinched me*) are almost categorically ungrammatical to my ear. Takahashi (2008) presents a different approach, arguing that, at least in English, imperatives may be used as commands in certain concessive subordinate classes (e.g. *I am going to Toronto, although don't expect me to bring you anything back!*). Little has been written about this phenomenon in Nêhiyawêwin, and to do so would be beyond the scope of this dissertation. What can be said is that the Imperative is not *exclusively* used in embedded clauses. This results in two organizational structures. The first patterns the Imperative syntactically with the Independent and the Changed Conjunct$_1$ as all three can occur in matrix clauses (note that the Changed Conjunct$_1$ also patterns with the other forms, as it can also be embedded), as in Figure 2.3.

The second possibility is one where the Imperative occurs both in both Matrix and Embedded clauses, as in Figure 2.4. In either of these situations, the syntactic system does not cleanly align with the morphological system of Order.

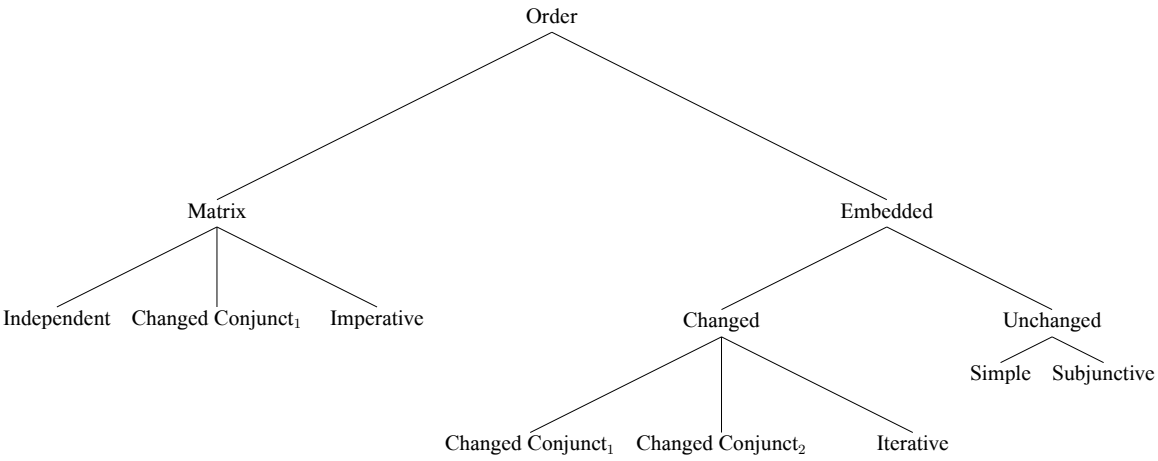

Figure 2.3: Syntactic Ontology 1

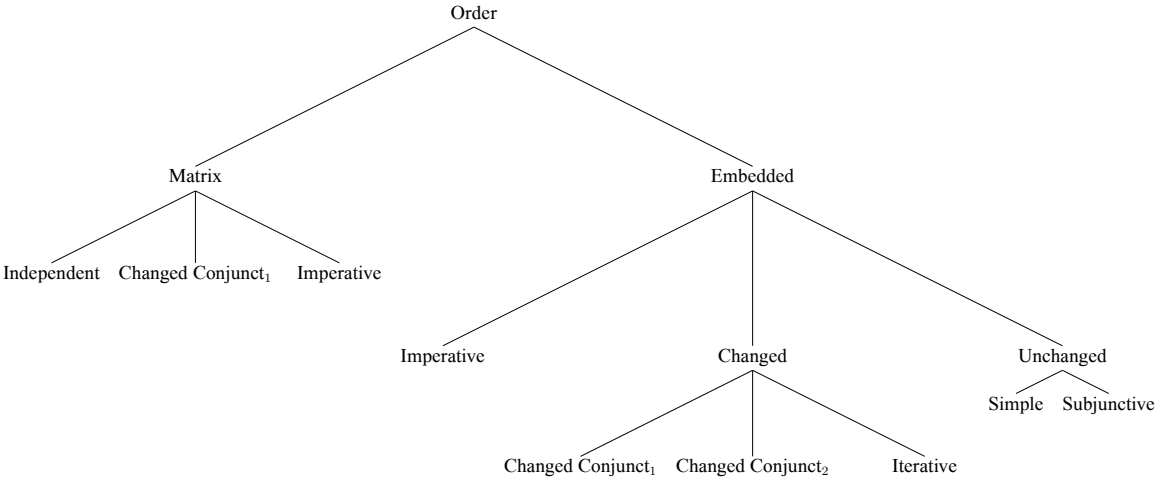

Figure 2.4: Syntactic Ontology 2

2.3.3 Semantics and Pragmatics

The semantics and pragmatics of Nêhiyawêwin Order can be broken down into two main theoretical constructs: (1) *sentence typing*, and (2) *clause typing*. Here, *sentence typing* refers to the three 'basic sentence types' as described by König and Siemund (2007), who identify the *declarative*, the *imperative*, and the *interrogative* as widespread typological phenomenon. These three Sentence Types are also represented in Nêhiyawêwin. While the Imperative order obviously corresponds to the imperative sentence type, the Independent and the Conjunct do not each represent one of the remaining sentence types. Instead, both the Independent and the Conjunct are able to be used as declarative

constructions (in an unmarked or elsewhere case) as well as interrogatives (by making use of the {cî} clitic for the Independents or the Conjunct Order for content questions). This produces an ontology similar to the morphological organization seen previously, demonstrated in Figure 2.5.

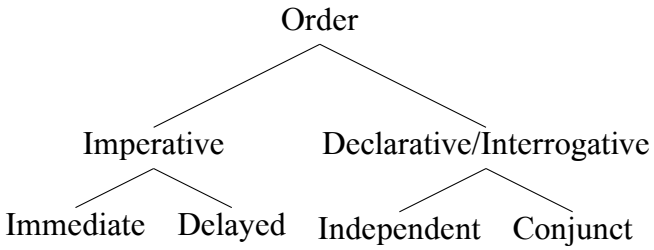

Figure 2.5: Semantic Ontology

For Cook (2014) the use of Order comes down to clause typing. Here, Cook (2014) distinguishes between indexical and anaphoric clauses. Indexical clauses are those that are grounded to the speech act, as the verb *kî-miyohtwâwak* is in (9). Indexical clauses are evaluated according the speaker as well as the time and place of the speech act; on the other hand, anaphoric clauses are evaluated according some different anchor (Cook, 2014).

(9) mistahi **kî-miyohtwâ-wak** êkonik ôk âyisiyini-wak kâ-kî-ohpikih-iko-yâhkik
extremely PST-be.kind.VAI-3PL DIST.PL FOC.PL person-PL CNJ-PST-raise.VTA-INV.THM-3PL.1PL

'The people who raised us (...) **they were extremely good people.**' (Ahenakew, 2000, 38)

This is perhaps most clearly instantiated in the use of the {kî-} morph, which is used with past events. According to (Cook, 2014, 125), this past morph is interpreted in an unspecified way in Conjunct clauses, which Cook identifies as inherently anaphoric, but is interpreted with a strictly modal (and non-tense) meaning in the Independent. Cook (2014) describes these anaphoric clauses as being licensed by some antecedent, present in the discourse or in the real world knowledge of the interlocutors. Essentially, Cook (2014) describes anaphoric clauses as having *some* sort of semantic or syntactic relation with a licensor in another clause (as in (10)). She also contends that, in Nêhiyawêwin,

anaphoric clauses are an elsewhere case that are defaulted to when an indexical clause is not present. The non-iteratve subjunctive form is not included by Cook, and its placement remains unclear.

(10) mistahi kî-miyohtwâ-wak êkonik ôk âyisiyini-wak **kâ-kî-ohpikih-iko-yâhkik**
extremely PST-be.kind.VAI-3PL DEM.PL FOC.PL person-PL CNJ-PST-raise.VTA-INV.THM-3PL.1PL

'**The people who raised us** (...) they were extremely good people.' (Ahenakew, 2000, 38)

Focusing specifically on the Conjunct modes, (Cook, 2014) distinguishes these forms by the ways in which their pragmatic/semantic propositions are introduced: the Changed Conjunct$_2$ and Iterative presuppose propositions, while Changed Conjunct$_1$ do not. Like the Changed Conjunct$_1$ forms, simple Conjuncts were not presuppositions, but are distinguished from Changed Conjunct$_1$ forms in that the latter are veridical statements, while simple Conjuncts are averidical Cook (2014, 302).[16] An adaptation of Cook's Order ontology is found in Figure 2.6.

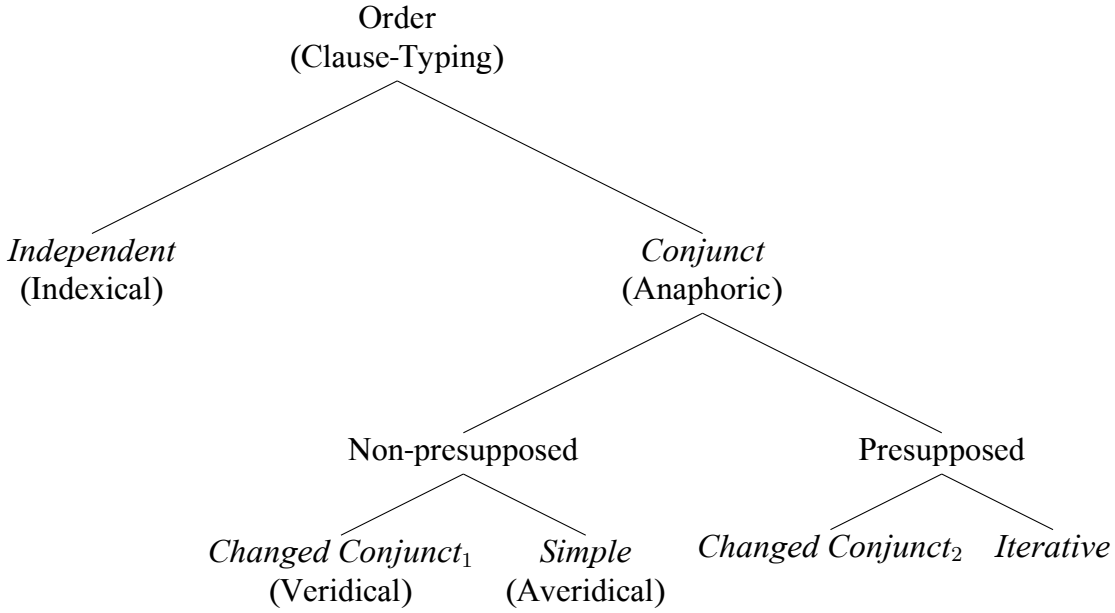

Figure 2.6: Order Ontology in Cook (2014)

Cook does not include the Imperative Order in her study, and it is difficult to determine where it would be placed in her ontology. Broadly, the imperative is clearly a

[16]It is unclear where Cook would place her subjunctive Conjunct in terms of veridicality, though given her placement of it as a type of 'simple conjunct', it seems possible that it would be an averidical form

clause type of its own: it represents an imperative clause as distinguished from declarative and interrogatives. If an indexical clauses is one that is rooted in the speech act. The definition of *indexical* provided could just as easily apply to the Imperative Order. Indeed, Alcázar and Saltarelli (2014, 111) describes the Imperative (independent of any specific language) as "encoding the (indexical) parameters of the speech act, such as participant roles, temporality and locality". Under this analysis, we find the ontology found in Figure 2.7.

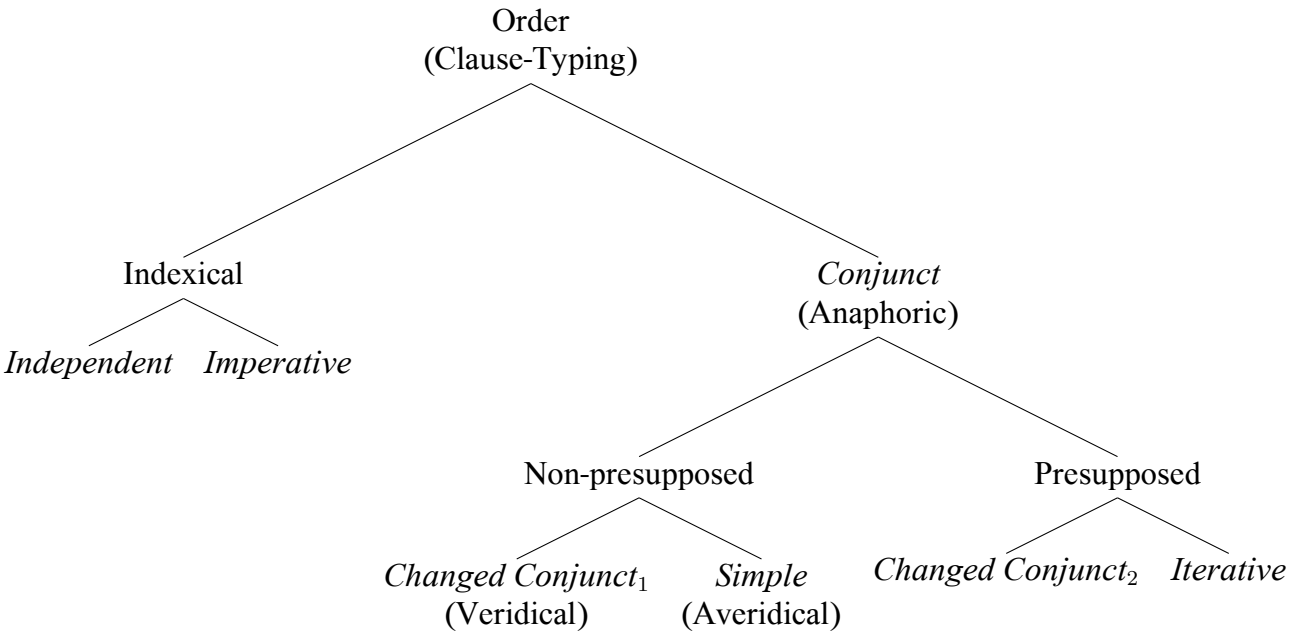

Figure 2.7: Order Ontology in Cook (2014)

Regardless of these interpretations, this sort of classification of Order, like others, necessarily treats the Independent, Conjunct, and Imperative not of the same kind (as is done in traditional descriptions of Algonquian grammar), but position Conjunct as opposed to an Independent-Imperative conglomerate (distinct from descriptions by Bloomfield (1930), Wolfart (1973), Wolvengrey (2011) and others, which group the Independent and Conjunct together as opposed to the Imperative).

Conjunct modes in This Dissertation

As shown, while both agree that modes of the Conjunct exist, Wolfart (1973) and Cook (2014) vary in their descriptions of them. In order to study Order, it is critical to operationalize what different modes exist. Rather than simply taking either the Wolfart (1973) or Cook (2014), I opt to use corpus evidence to define the Conjunct modes on a structural basis. In the subset of the Ahenakew-Wolfart corpus (Arppe et al., 2020) used for this dissertation (see Chapter 4 for more detail), the following set of morphological patterns were found:

- ê- Initial (6373 tokens)
- ka-/ta- Initial (910 tokens)
- kâ- Initial (2458 tokens)
- Initial Change (54 tokens)
- Subjunctive {-i} (172 tokens)

Interestingly, there were no forms in the analyzed corpus that contained both a subjunctive suffix *and* IC (the *iterative* in Wolfart (1973) and Cook (2014)). While the corpus lacked an iterative, it did contain verbs with *only* IC,[17] a form seemingly missing in Cook (2014). Further, the naming conventions used by Cook (2014) and Wolfart (1973) will not be used for this dissertation. Instead, I will refer to the Conjunct modes by their prefixes. The only exceptions to this are those forms where there is only initial change and those forms suffixed with the subjunctive morph. Because they can not be identified by a single prefix, they will be called the *Initial Change Conjunct* and the *Subjunctive Conjunct*.

[17]This may be due, at least regarding IC, to the fact that {ê-} was historically nothing more than a vehicle to indicate Initial Change (Wolfart, 1973, 46). In this way, one could consider the {ê-} prefixed Conjuncts as inherently Changed, though synchronically this is non-obvious. As a result, the remainder of this dissertation will not consider the {ê-} prefixed Conjuncts as examples of Initial Change.

In considering types of Conjunct, there is a structural difference between those types that have a grammatical, Conjunct specific, preverb such as {ê-}, {ka-}/{ta-}, and {kâ-}. These forms can be thought of as being *prefixed*, while the Initial Change and Subjunctive forms can be considered *bare*, due to their lack of a Conjunct prefix. Both Initial Change and Subjunctive forms have only a small number of tokens. Bare tokens with Conjunct endings but lacking either the Subjunctive {-i} or IC were excluded as contemporary speakers considered them as 'incorrect,' and their frequency in the corpus was even smaller than that of the Initial Change Conjunct.

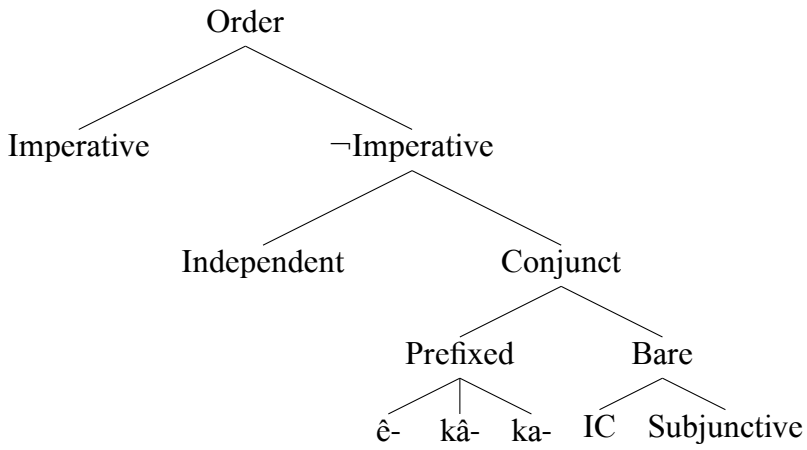

Figure 2.8: Morphological Ontology of Order

The most salient similarity between the Imperative, the Independent, and the Conjunct orders is that all three are able to inflect for second person items, at least in the non-VII classes. Beyond this, there are few similarities. Indeed, the Imperative differs from the other two Orders in that it:

- cannot be used with first, third, or obviative actors
- cannot take person-marking preverbs
- does not concern syntactic clause typing (and instead concerns speech-act level information)
- does not occur in statements of conditionality

Comparatively, the primary difference between the Independent and Conjucnt orders are the morphological exponents used in each Order. This results in a morphological system as visualised in Figure 2.8. Although the corpus used in this dissertation does not include Iterative Conjuncts, one could include them as a type of Subjunctive Conjunct (as both contain the Subjunctive suffix), resulting in the structure of Figure 2.9.

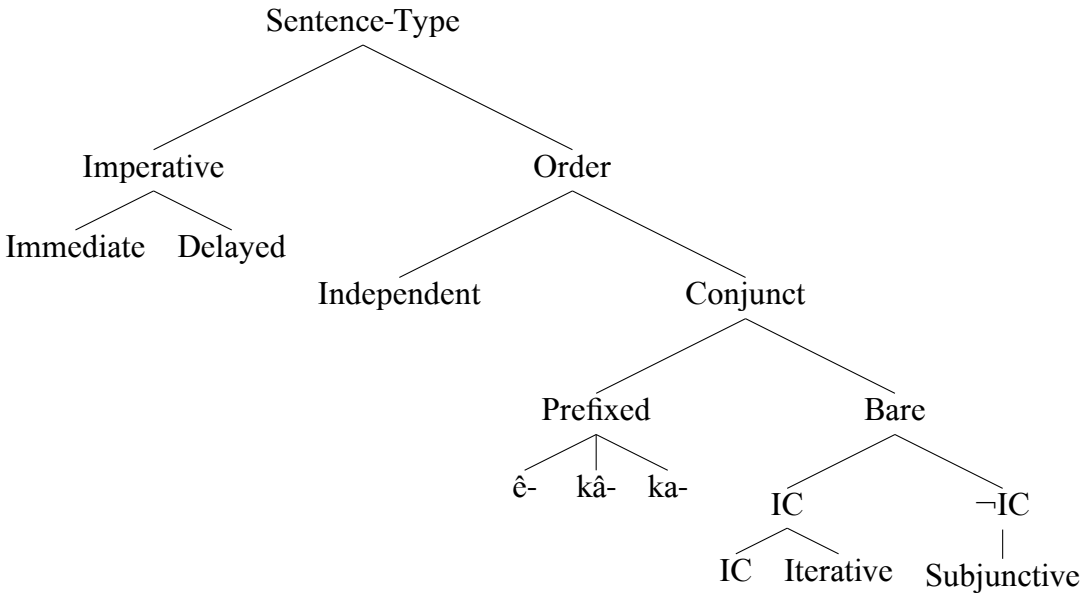

Figure 2.9: Morphological Ontology of Order 2

Alternatively, one could group the iterative with the Subjunctive, thus creating a Bare distinction between item with an {-i} suffix and those without, as in Figure 2.10.

There is no good theoretical reason to chose one of these options over the other. One could also choose to treat the Subjunctive, IC, and Iterative conjuncts as three separate nodes, grouping none together. While this seems as valid as the previous two ontologies, it ignores the similarities of the Independent and the Conjunct in Nêhiyawêwin. In fact, because all bare forms in the language are combined the sake of analysis in this dissertation, this distinction is not material for this dissertation.

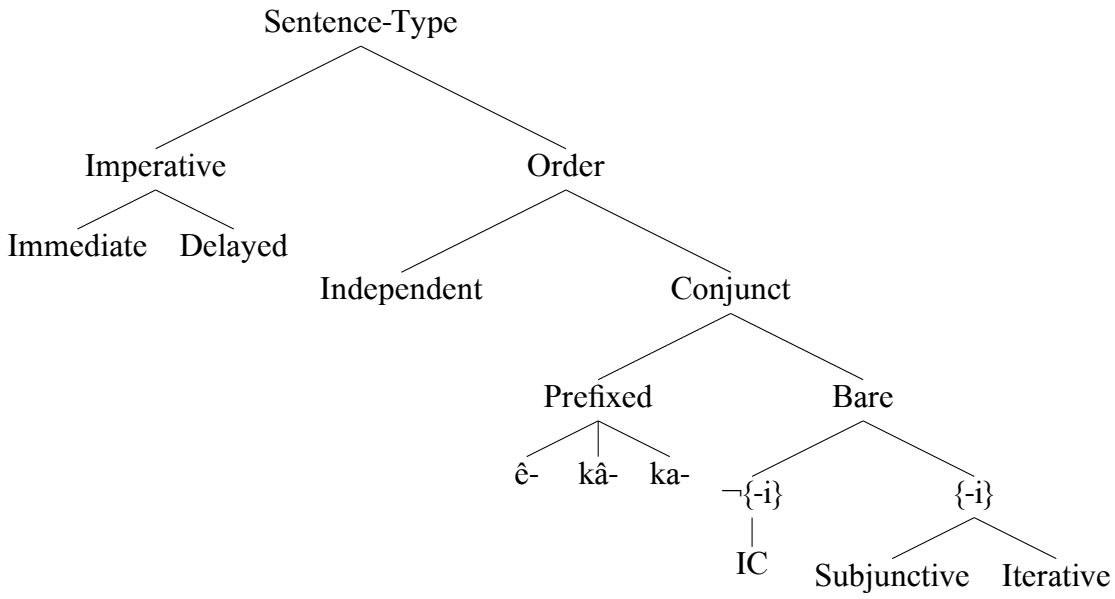

Figure 2.10: Morphological Ontology of Order 3

2.3.4 Summary of Order

Nêhiyawêwin Order has been described as a system of linguistic features cross cutting various levels of representation. Morphologically, Order is a structural phenomenon which Algonquian languages use various exponents to mark person on verbs. Under this definition, we can identify three Orders:

1. Those where the VAI, VTI and VTA classes use circumfixes with {ni-} prefixes for first person and {ki-} prefixes for second person (the Independent)

2. Those with the prefixes {ê-}, {ka-}/{ta-}, {kâ-}, or Initial Change regardless of person (the Conjunct)

3. Those which use neither of these strategies (the Imperative)

This places the Independent and Conjunct together against the Imperative (which is essentially defined as not being Independent or Conjunct). Alternatively, we can identify two Orders:

1. Those that can mark for first, second, third, and obviative persons (the Independent

and Conjunct)

2. Those that can mark only for the second person (the Imperative)

Again, in this situation the first of these proposed Orders would include what is traditionally called the Independent *and* what is traditionally called the Conjunct, with the second class making up the Imperative.

If we choose to define the phenomenon in terms of semantic, syntactic, and pragmatic behaviour, we can refer to Figure 2.7, wherein Independent and Imperative are indexical, while the Conjunct in anaphoric. Contrary to the previous descriptions, this places Conjunct apart from the other Orders.

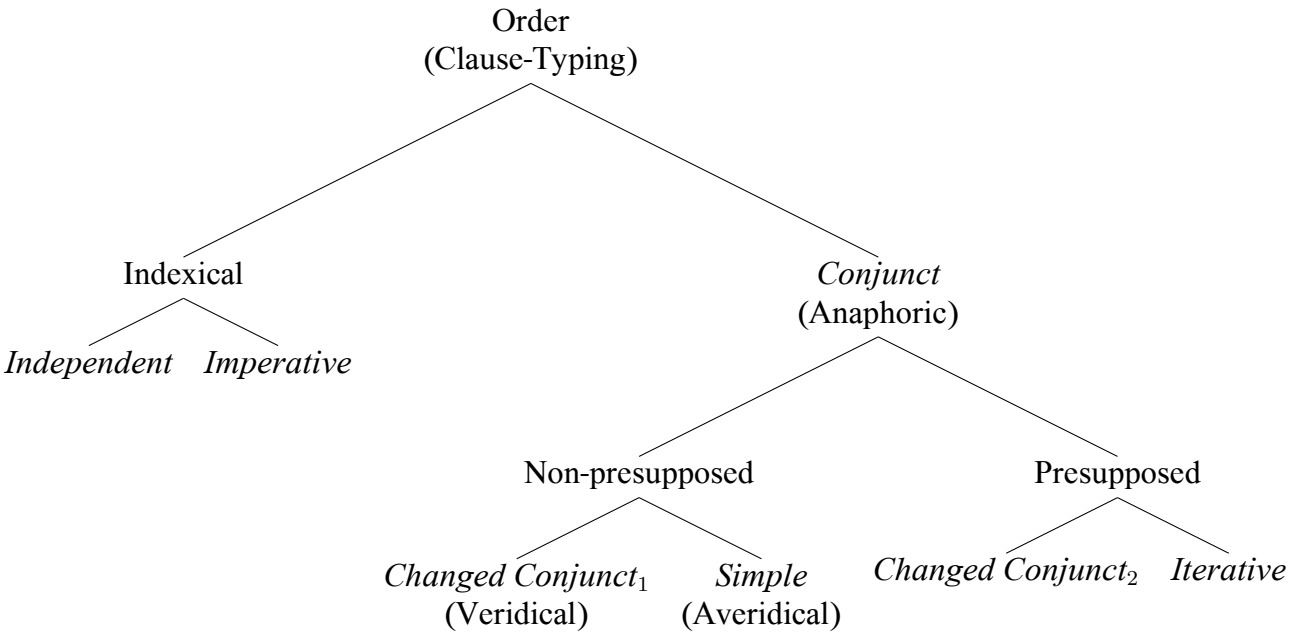

Figure 2.7: Order Ontology in Cook (*2014*) (*repeated from page 29*)

Finally, if we consider Order purely in terms of semantics, we can define Order as system of distinguishing mood (the imperative vs. the declarative). In this classification, the Independent and Conjunct are not distinguished by mood in the same way that they can be contrasted against the Imperative (cf. 2.11).

Thus, we again have a situation where the Imperative is of a different kind than the Independent/Conjunct. Regardless of what scheme one uses to describe Order in

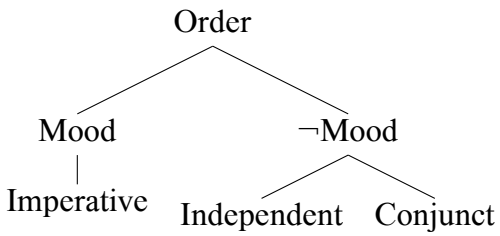

Figure 2.11: Semantic Order Ontology

Nêhiyawêwin, there is no way to divide the Independent, Imperative, and Conjunct such that they're all of the same kind or on the same level. The best argument for equating the Independent, Conjunct, and Imperative is that occurrence in one of these precludes occurrence in the other (i.e. there is no such thing as an Independent Imperative).[18] Under this definition, a tri-partite Order is essentially an operation that takes a verb stem, a linguistic person or persons, and a direction (if needed) and produces a surface form as in equation (2.1).[19]

$$\text{Conjunct}(\text{wâpam}, (1\text{SG}, 3\text{SG}), \text{inverse}) = \text{ê-wâpamit} \tag{2.1}$$

In this way, one can think of Order as an operation that applies to verbs; however, the Imperative is incompatible with the VII class, while both the Independent and Conjunct can apply to any class. Even considering Order as this sort of formal function leads to a distinction between the Imperative and the Independent/Conjunct. In terms of structure, behaviour, and semantics, this difference persists. This conflict is problematic to the study of Nêhiyawêwin grammar, as any claim about Order needs to be relevant to all three of these categories. For these reasons, the use of the term *Order* will be redefined in this dissertation. Instead of creating a three way split between Independent, Conjunct, and Imperative, I will consider Order to be a grouping of allomorphic alternations in the paradigm. Therefore, in this dissertation will refer only to the Independent and Conjunct.

[18]Unless, of course, one identifies the Delayed Imperative as a Conjunct form for the Imperative, as described above.

[19]I make no claim of psychological reality in this statement, it is purely metaphorical.

In terms of describing what the Imperative is, if not Order, I propose that the Imperative is a construction that acts as an illocutionary force indicating device (Searle and Vanderveken, 1985) marking a command. Under this system, we can understand the interrogative to be marked through the use of the {cî} morph, and the declarative to remain unmarked. Thus the concept of mood (which is mostly imparted by preverbs in Nêhiyawêwin) is made separate from the idea of Order entirely. Thus, while the Independent and Conjunct may still be referred to as Order, the Imperative is of the sentence-type or illocutionary force.

2.3.5 Alternation

By extricating the Imperative from the system of order, we are left with a binary distinction of Independent and Conjunct. This juxtaposition presents two ways of encoding person number with different morphemes. In other words, while the shape and grammatical content (e.g. both Orders mark exactly the same persons) of the *paradigms* are the same, the actual exponents that are realized in the cells are not. According to Cook (2014), these two alternatives correspond one-to-one to clause typings, the indexical and the anaphoric. This view of Order as two alternative constructions used to encode different meaning is essentially one of *alternation*.

In its broadest conception, the idea of an alternation is simply one in which some linguistic form—be it phonological, morphological, syntactic, or other—is contrasted with another. Pijpops (2020) presents an overview of the concept covering the three traditional definitions (1-3) along with three more recently developed conceptions (4-6):

1. Alternations share meaning, are similarly processed in the mind, and vary dialectally.

2. Alternations share the same meaning, do **not** vary according to dialect, but **are** differently processed in the mind.

3. Alternations have a difference in meaning that varies due to some lexical influence
4. Alternations represent any point where the speaker must make a choice in what is said
5. Alternations are a tool to analyze phenomenon that a linguist deems interesting
6. Alternations are items with special theoretical relations to one another

In addition to Pijpops (2020)'s definitions, there are other ways to approach alternations. Specifically, one can make use of a lexicographically grounded approach which considers the concept of synonymy and the way in which synonyms and near synonyms can be used in similar (but not identical) contexts. In this vein, (Cruse, 2000, 156) discusses the concept of synonymy, which he defines as not simply words with the same meaning, but "words whose semantic similarities are more salient than their differences." In particular, Cruse identifies three types of synonyms: absolute synonyms (which are fully equivalent and occur rarely), propositional synonyms, (which alternate without changing the truth condition of a statement, but which may differ in speaker attitude or register), and plesionyms/near-synonyms (which can be said to share core semantic properties, even if they differ in 'minor' or 'background' ways) (Cruse, 2000, 157-159). Because any of these forms of synonymy necessarily concern the employment of one of many forms for the same referent, synonymy is a clear case of alternation. Similarly, Inkpen and Hirst (2006) describe near-synonymy as words which can not be chosen between without knowledge of contextual differences. Following from this lexicographic approach, alternations can be construed on various levels: conceptual-semantic alternation, stylistic-semantic alternation, and a syntactic-semantic alternation (Arppe 2008, 8; cf. Edmonds and Hirst 2002 for an earlier discussion of a similar concept). According to Arppe (2008, 8), conceptual-semantic alternations concern words that mean generally the same thing and can be used (roughly) interchangeably (e.g. *dash* and *sprint*); stylistic-semantic alternations occur between words or phrases that

share similar meanings, but contain different connotations (*poop* and *shit*); and syntactic-semantic alternations deal with similar utterances which take different syntactic patterns (*comb* (*through*) and *inspect*). These levels of representation consider alternations as near-synonymous sets that can make use of three latter definitions presented by Pijpops (2020), particularly as a point-of-choice. They also roughly correspond to those of Hanks' lexical, semantic, and syntactic-type alternations (2013, 173). Arppe (2008, 10) also proposes a subset of syntactic-semantic alternations referred to as constructional alternations, which concern phrases instead of words, keep the same central meaning, though which may differ in more subtle, often pragmatic dimensions, as discussed in Biber et al. (1998) and mentioned as a caution for taxonomic classification by DiMarco et al. (1993). Framing a phenomenon as an alternation creates a structured difference that researchers can investigate. As an example, discussing the Independent and Conjunct Orders as an alternation allows researchers the ability to compare and contrast the particular morphophological processes that go into each cell in the paradigm. This is possible precisely because the paradigms alternate straightforwardly while keeping the general size and shape of the paradigm remain constant.

Using the lens of alternation, I propose that Order can be studied with systematic quantitative methods, as put forth by Arppe (2008) and Arppe (2009), expanding from Gries (2003) and Bresnan et al. (2007). In Arppe (2008), various Finnish synonyms for *think* in a corpus are analyzed for their morphological, syntactic, and semantic values. Each token is given a tag set that summarizes these features, and a multivariate statistical analysis technique such as logistic regression is used to determine which features predict the use of which synonym (e.g. that the use of a *think* verb in a direct quote significantly increases the likelihood of the use of *miettiä*, 'think, ponder'). I suggest that Order could be studied in a similarly principled way: instead of considering the alternation between two synonymous lexemes, we consider near-synonymous inflections. Related work, such as that by Divjak and Gries (2006) who investigated nearly synonymous *try*

verbs in Russian; Klavan and Divjak (2016) who reviewed nearly synonymous choice in Arabic, English, Estonian, and Russian through statistical methods; and Klavan (2020) who approached Estonian near-synonymy with both logistic regression and a related technique, naieve discriminitive learning, further motivate this research.

However, viewing Order as an alternation can be difficult given the above definitions. Order cannot be conceived as a conceptual-semantic alternation as the Independent and the Conjunct *do* appear to have some restrictions on their syntactic distribution; similarly, Order cannot be said to be a stylistic-semantic alternation as there is no such connotation difference; Order can also not be considered either syntactic-semantic or constructional alternations as these fail to capture that the alternation applies not to a set of lexemes or construction frames, but an entire morphological paradigm. Thus, we argue that the phenomenon of binary Order, between Independent and Conjunct, is a form of nearly synonymous constructional alternation, but one that has remained, as of yet, undescribed. We propose that order represents a *paradigmatic alternation*. A paradigmatic alternation is here defined as one where *any* lexeme of a particular word class is able to take two or more different paradigms but where each of those paradigms is identical in shape but different in exponence. This differs from similar phenomena such as noun class where there are indeed alternating paradigms with similar or identical shapes differing in exponents but where it is not the case that any noun can occur in any paradigm. Instead, the paradigm which a lexeme occurs in is functionally an attribute of a lexeme. [20].

Viewing Order as an alternation allows for the investigation of how Orders behave. Rather than relying on impressionistic analyses of these phenomena, researchers can construe this alternation as a question of binary classification. Building off similar work by (Arppe, 2008), one can focus on Order identity itself as a response variable that is

[20]It is worth pointing out that this type of alternation is not necessairly unique to Nêhiyawêwin. In fact, a very similar pattern of inflection is seen in Koiari tense. This is further discussed in Harrigan and Arppe (Forthcoming)

predicted by a number of morphosyntactic and semantic features.

Viewed as an analysis of an alternation, the primary research question of this dissertation is as follows: what morphosyntactic and semantic features affect a lemma's propensity to occur in a particular alternation of Order or mode. Adopting a usage-based approach based in the distributional hypothesis (Firth, 1957; Harris, 1954), this research will utilize quantitative methodologies in an effort to see to what extent empirical, corpus-based evidence can guide us in the understanding of Nêhiyawêwin Order.

For the purposes of this dissertation, three main levels of paradigmatic alternation will be considered. The first of these alternations is the **Independent vs. Conjunct** alternation. This is the highest level alternation and is essentially that of the phenomenon of Order. This alternation thus represents the high level decision of what morphological paradigms is to be used. The second alternation is the **Independent vs. ê-Conjunct**. Although this alternation appears to cross multiple levels of representation (e.g. the decision to use an Independent vs. a Conjunct form appears to precede the decision to use an ê-Conjunct), the linguistic motivation for this alternation is found in the similar behaviour and functions as described by Wolfart (1973) and Cook (2014). The final alternation is the **Conjunct Type** alternation between the ê-Conjuncts, kâ-Conjuncts, and all other Conjunct types. This alternations is perhaps the most straightforward, and is motivated by the fact that one must choose what form of a Conjunct they use for a verb.