INTRANSITIVE COPY PRONOUNS, MENTAL SPACES, AND THE ACCESS PRINCIPLE: A CHARACTERIZATION FROM COGNITIVE LINGUISTICS

by

KYLE A. HUBBARD

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Contents

1. Introduction

My intent in this thesis is to argue that the diverse functions of Intransitive Copy Pronouns (ICPs) can be adequately explained with reference to normal cognitive processes. In particular, I show that the Access Principle is the enabling element in a number of seemingly unrelated use environments and functions associated with ICPs. I also show that ICPs can be used to help navigate cognitive disruptions, which may account for what motivates their use. This all argues against the common approach in the literature that treats ICPs as a special phenomenon with divergent and often unexplainable functions and use-environments. Instead, I find it more appropriate to analyze the ICP as a normal participant index used as a relatively straightforward means of organizing participants and their conceptual world. In this thesis, I attempt to explain ICPs using well-established cognitive linguistic principles, and in so doing hope to offer fairly simple explanation for much of what makes ICPs seem strange and unusual.

In §§1.1-1.2, I introduce Intransitive Copy Pronouns (ICPs) and give my working definition of "middles". Doing so is especially necessary in light of the different definitions of the middle voice. I then provide an introduction to mental spaces and the Access Principle in §1.3, along with an introduction to some general cognitive linguistic principles. I also give definitions for several terms I use in my analysis (§1.4). In §2, I build a characterization of the ICP that draws from interspace relationships and the Access Principle. In particular, I look to the way ICPs are used with middle verbs to show that [+ ICP] constructions encompass a mental space structure involving a single participant divided according to two different causal perspectives. The fact that these constructions encompass different mental spaces, and the existence of a close connection between the participants in those spaces, suggests the applicability of the Access Principle. As I argue in the latter parts of §2.1, I believe the Access

Principle provides sufficient explanation for things like the apparent coreferentiality of ICPs and their associated syntactic subject, without requiring a reworking of preestablished theory. I follow this in §2.2 with an explanation of how the mental space structure of [+ ICP] constructions accounts for the use of ICPs with non-middle verbs (i.e., those not clearly fitting the categories given by Kemmer (1993)).

I apply my thesis to a variety of purported ICP functions in §3; here I leverage mental space structure, the Access Principle, cognitive disjuncture, and the limits of working memory – all elements of cognitive linguistics – to help explain why ICPs are used in certain environments, and what motivates their use. This entails in part examining a purported functional connection between ICPs and cognate objects in §3.1 – a connection I counter on the basis of their different derivations (despite the existence of superficial similarity in their cognitive structure). I also examine the purported link between ICPs and subject point-of-view (§3.2) – which I largely affirm – and show how my thesis both clarifies the nature of the participants involved and builds a theory-grounded explanatory framework. Finally, I use my thesis to help expand the known functions of ICPs (§3.3). I do so by showing how the unique cognitive structure of [+ ICP] constructions allows them to be used for navigating instances of change in the cognitive environment. In so doing, I explain some of the various (and seemingly unrelated) semantic effects associated with ICP use. I also give evidence suggesting the existence of a previously unreported ICP use related to participant tracking and mental activation of referents in discourse.

1.1 Intransitive Copy Pronouns

Intransitive Copy Pronouns (ICPs) are a phenomenon found in several languages of West Africa. Though they differ slightly across languages, prototypical ICPs are post-verbal indexes (i.e., pronominal suffixes) reflecting or re-referencing the referent of the pre-verbal subject index. For

this reason, they are sometimes called recapitulative pronouns (Storch 2009: 123; see also Koops & Bendor-Samuel 1974). In some languages, they constitute an entirely separate referent paradigm, distinct from both subject and object indexes; in others, they closely resemble direct object or possessive pronouns. ICPs frequently occur with semantically intransitive verbs; as such, their use creates a transitive-like construction. The following examples are a sampling from across the literature:

(1) *nà* *pòrò-no*
1SG go_out.AUX1-ICP
'I went out.'
(Kanakuru,[1] West Chadic; Newman 1971: 190)

(2) *sèm* *bè-tá* *sáy*
man came-ICP AUX.FOC[2]
'The man came.'
(Miya, West Chadic; Schuh 1989: 173)

(3) *tè* *mùràn-rò*
3SG.F died-ICP
'She has died.'
(Widala,[3] West Chadic; Jungraithmayr & Leger 1993: 169)

(4) *à-nzá-n-kà*
3SG.M-run-ICP-PRF
'He ran.'
(Gidar, Biu-Mandara; Frajzyngier 2008: 138; in Anderson 2011: 146)

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[1] Under the earlier name *Dera*.

[2] Early work glossed this as a totality extension. I have glossed it as an auxiliary focus marker under the influence of more recent research, especially Schuh (2017).

[3] Also known as Kholok.

Constructs similar to ICPs have been noted as far back as Welmers (1948) and Samarin (1967). The term “Intransitive Copy Pronoun”, however, was not used till Newman (1971). He based this term on the observation that ICPs in Kanakuru (West Chadic, Nigeria) are an obligatory suffix occurring with intransitive verbs in certain tenses, which a) reflect subject information, and b) render a transitive-like construction. This general analysis was extended by Frajzyngier (1977), who noted that ICPs in Pero (West Chadic, Nigeria) occur only in non-stative constructions without an object, and that they render an inchoative sense.

Some of these earliest observations about ICPs and how they function have since been amended or greatly expanded. A significant factor in this has been the discovery of ICPs in Benue-Congo languages. Some of these languages exist within a Sprachbund in Central Nigeria alongside genetically unrelated West Chadic languages, which are well known for having ICPs. This motivates the theory that ICPs spread as an areal feature (Wolff & Gerhardt 1977; Storch 2009; Storch, Atindogbé & Blench 2011; Hellwig 2011) within and around the Central Nigerian plateau, though the existence of ICP-like structures in Narrow Grassfields languages of Cameroon, such as Ngamambo (Asongwed 1980) and Bafanji (Nicolle In press), suggests an even wider distribution. ICP research continues to develop, and an increasing number of phenomena are now analyzed as having formal and functional overlap with “classical” ICPs; among them both copy pronouns (Storch, Atindogbé & Blench 2011; Atindogbé & Chibaka 2011) and focus pronouns (Koops 2011; see also the same focus pronouns under other names in Shimizu 1980; Koops & Bendor-Samuel 1974; Noss 1981; Storch 1999).

1.2 Defining the middle

In §2.1 below I use the relationship between ICPs and middle verbal events to build a case for explaining ICPs in terms of cognitive linguistic principles, chief among them the Access

Principle. There are at least two major approaches to defining the term "middle". The first has its roots in descriptive analysis of specific languages. It is a form-function approach, as it considers "middles" (properly: morphosyntactic markers of middle voice) to consist of a group of similar forms that share a common function (Bakker 1994: 23). This approach is particularly evident in classical grammars, especially for languages like Ancient Greek; the grammars of both Kühner (1898: 100) and Thompson (1902: 305–306) identify similar morphosyntactic forms, grouping them together on the basis of their shared function (i.e., that of indicating self-affecting verbal action). This form-driven morphosyntactic category is then used as a prototype for assessing other morphosyntactic elements. From this perspective, a given morphosyntactic element is a middle if it a) is similar in form to the categorical prototypes, and b) matches the function of the categorical prototypes. Thus, Dixon and Aikhenvald (2000: 11–12) can argue that "middle" ought to be reserved for cases that mirror the Ancient Greek middle. In this view, there is no typologically valid "middle" consisting of dissimilar forms and strategies (such as passives, reciprocals, reflexives, etc.) used for expressing self-affectedness, but rather only those constituent elements (passives, reciprocals, etc.) as distinct, unrelated phenomena. This is fundamentally the approach adopted recently by Inglese (2021); though he looks at a wide range of languages, and though his conclusions are likely valid within the framework of his aims, the definition of "middle" he proposes ultimately depends on starting with forms and then assessing whether those forms have the particular functions he's looking for.

An alternative perspective is that adopted by Kemmer (1993; 1994), who owes much to the observations of Lyons (1968). In Kemmer's perspective, self-affecting action is a semantic category that can be grouped together into a language-independent, functional category with a variety of formal manifestations. This is a function-form approach, since it interprets the middle

as a function expressed through a variety of forms, rather than as a group of similar forms sharing a common function; as such, it has been associated with discourse-pragmatic and typological aims (Bakker 1994: 23). This perspective is reflected in the approaches of Keyser and Roeper (1984), Fagan (1988), Hardy (1994), LaPolla (1996; 2010), Amberber (2010), Martin (2010), Rice (2010), and Campbell (2017), along with many others. The verbs of the middle share a common function, though they may be dissimilar in form. This function can be described in terms of two semantic properties, which I adapt from Kemmer (1993: 238). The first is that the initiator of these middle verbal events is also an endpoint or "affected entity" of the same verb. The second is that the verbs themselves are characterized by a low degree of elaboration of events, which is to say that they are characterized as having a low degree of distinguishability of the participants and verbal sub-events that make up the overall action (Kemmer 1994: 211).

Despite challenges to this perspective – brought most recently by Inglese (2021)[4] – I continue to use Kemmer and her broad functional/semantic middle as my starting point. First, my aim is more typological than descriptive, in that I'm trying to understand the function of ICPs and how they fit alongside other systems with related functions; thus, I'm less interested in deciding whether the ICP fits a certain prototype (or network of prototypes) than I am in

[4] Inglese takes issue with the Kemmer's relative imprecision. He argues a) that the process Kemmer uses to individuate situation types is overly controversial, and b) that the semantic category of middles she uses in determining whether or not morphosyntactic elements count as "middles" lacks an "explicit and operationalizable characterization" (Inglese 2021: 493). He proposes instead a narrower definition of "middle marker" that accounts for these two criticisms and draws from a wider and more diverse dataset. Yet while I acknowledge the grounds for these criticisms, they don't apply to my thesis. That's because I am not arguing that ICPs are middle markers; instead, I'm arguing that ICPs are a means of expressing a particular verbal participant's relationship with the verbal action. ICPs often occur with "middle" verbs, but they are theoretically acceptable even with other verb types, as I show in later sections. ICP use is governed by normal cognitive processes relating to participant structure and attention management, and ultimately has little overlap with Inglese's work.

deciding whether the ICP functions similarly to both the prototypes and a range of other systems that have similar function.[5] Second, the function-form view of the middle has been widely adopted in ICP research. Scholars as early as Jungraithmayr (1970) have explicitly analyzed ICPs as middle constructs, despite dissimilarities between them and the Ancient Greek middle. Frajzyngier (1989) connected ICPs with the reflexive in Romance and Slavic languages on the basis of their "common semantic conditions" (Frajzyngier 1989: 119). This constitutes an implicit function-form approach to typifying the ICP that later researchers, such as Leger and Zoch (2011: 41), made explicit. Schuh (2005: 22) noted that ICPs affect valency in a way that makes them "strikingly like middle reflexive pronouns". Storch, et al. (2011: 7) link ICPs to similar self-affective (i.e., functionally "middle") constructs in English. Leger and Zoch (2011: 37) explicitly invoke Kemmer's "middle" to explain ICPs, and note their use to mark self-initiated and self-affecting verbs. My adoption of the function-form approach to middles fits well with these and other observations made over several decades.

I do this with certain misgivings, however. My thesis supports the idea that languages can approach participant organization with a great deal of fluidity. This makes sorting verbs into neat categories of inherently "middle" and inherently "non-middle" very difficult, despite the existence of criteria made for that purpose (i.e., Kemmer 1993: 16–20).[6] We tend to categorize "middle verbs" the same way we categorize "transitive verbs", or "intransitive verbs", which is to say, we treat them as discrete points when in reality, they exist on a continuum whose

[5] This typological aim combines with a general cognitive orientation to produce the typological-cognitive perspective at the core of my thesis. For explicit discussion and adoption of this perspective, see Kibrik (2011: §1.7 and throughout).

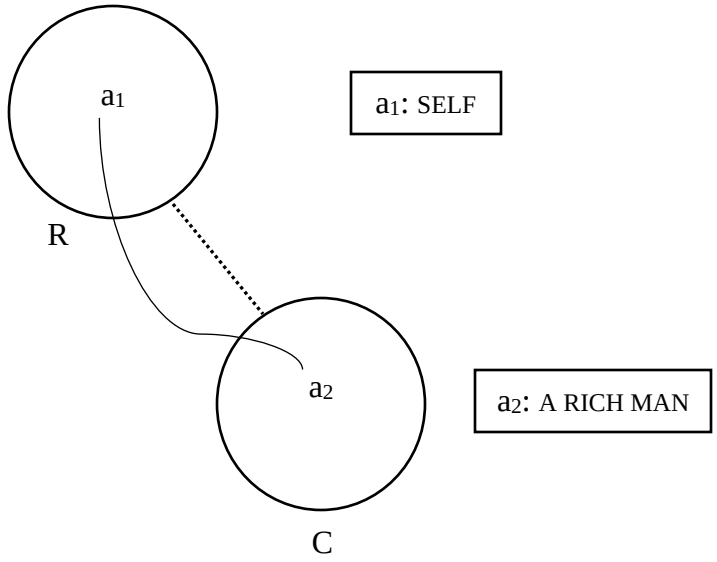
[6] I discuss some of these difficulties in §2.2.

boundaries are language-specific and mutable. Nevertheless, ICP research has used the language of "middles" for such a long time that it is difficult to enter the conversation without adopting that same language. So when I talk about "middle verbs" in this thesis, that should be understood as shorthand for "verbs that are often construed as involving the initiator as an affected entity". This follows the Kemmerian sense of middles and fits in well with other ICP research. It also proves helpful on a practical level: it is fairly simple with these sorts of verbs to show the mental space structure being profiled by the ICP, which also makes it easy to see the cognitive relationships that allow ICPs to be used in all their various ways. By the end of §2.2, it should be clear that ICPs do more than simply mark middle verbs, which constitutes gentle pushback on some recent trends in ICP research (see Leger & Zoch 2011: 42, among others).

1.3 Mental spaces and the Access Principle

The Access Principle is a key tenet of Cognitive Linguistics that describes the relationship between entities inhabiting different mental spaces. Before I expand on this, it is necessary to explain mental spaces. Mental spaces are conceptual groupings of information built up during discourse (Fauconnier 1985: 16). For the utterance "If I were a rich man…", two mental spaces are set up; one contains the speaker (i.e., the referent "I", here labeled as "SELF"), and the other contains the second referent that the first is being compared against (i.e., "a rich man"). This is evident in the following example (note that *R* represents the space corresponding to the speaker's reality, while C represents the counterfactual reality introduced linguistically by the combination of "if" and use of the past tense):

(5)



Note that the two participants a_1 and a_2 are linked, though they constitute entities within separate conceptual groupings (that is, within the separate but linked mental spaces R and C). Each mental space – and there may be several in existence at any given stage of discourse – is built from a *base space*, the starting point of a discourse-oriented network of conceptual groupings (Fauconnier 1985; 2007).

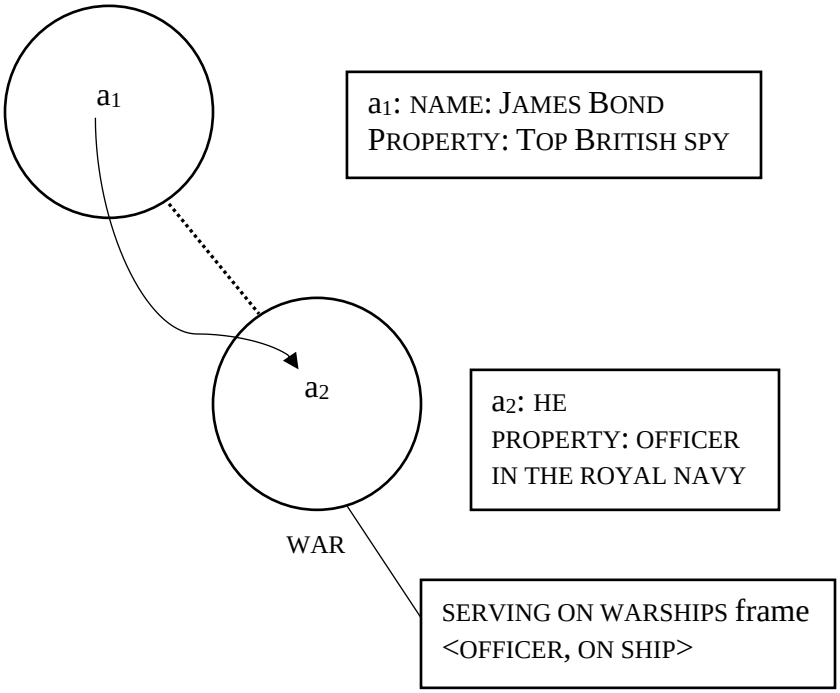
I return now to the Access Principle. The Access Principle states that "an expression that names or describes an element in one mental space can be used to access a counterpart of that element in another mental space" (Fauconnier 1997: 41). Accessing an element's counterpart in this way also grants access to any information already associated with that counterpart. And since it relies on the same type of cognitive connection, this associated information can be updated with new information as well. In essence, given two linked referents – a *base referent* existing in the base space and an *other* element in an *other* space – we have two possible options for adding information relevant to the *base element* and its space: the direct way and the Access-mediated way. The direct way is to explicitly express the *base* referent as it exists in the *base*

space, adding information relevant to the *base* space. The Access-mediated way is to explicitly express the linked *other* element that exists in the *other* mental space, while still adding information that is relevant to the *base space*. With the Access-mediated way, though each of the linked referents exists in separate mental spaces, information related to a participant in one mental space is added by accessing that participant from within the connected – but distinct – mental space inhabited by the *other* element. This is illustrated in the following example, which I derive from Evans and Green (2006: 375–378):

(6) a. James Bond is a top British spy.

b. In the war, he was an officer in the Royal Navy.

c. James Bond served on HMS *Espionage*.



The sentence in (6a) above sets up a mental space containing the referent *James Bond*, and attributes a property to that referent (i.e., that he is a "top British spy"). I follow common usage in leaving this space unlabeled, since there is no explicit information provided in building the space inhabited by *James Bond* (such as "in Ian Fleming's novels", or "in today's Britain"). Sentence (6b) introduces a second referent, *He*, along with the explicit space builder "in the war"; note that because of this space builder I've labeled the space containing *He* the WAR space. *James Bond* and *He*, which are inferred as referring to the same "real" individual, are labelled as a set of linked referents, a_1 and a_2, which are *mapped* to each other. The property of *He* that was given in (6b) – i.e., that *He* was an "officer in the Royal Navy" – is added to the WAR space's frame information. Doing so arguably[7] also prompts for the second set of WAR space frame information that concerns the relationship between ships – a known element of the Royal Navy – and those who serve aboard them. This frame information helps shape how the referent *HMS Espionage* in (6c) is understood. Though this is a complex example, what is essential is that it shows the Access Principle at work: information relevant to the WAR space (i.e., the identity of the ship) which helps further describe the WAR space's participant (i.e., *He*) is being added from within the base space, by explicitly referring to *James Bond*. This works because referents a_1 and a_2 are mapped, and because the Access Principle allows for the flow of information between mental spaces through linked referents.

[7] I say arguably because the exact point at which frame information is added isn't always clear; this is similar to the reality that lets mental spaces be built both explicitly and implicitly. It may be the case that the warship frame information comes into existence when the Royal Navy is mentioned; it may also be the case that mention of the Royal Navy prepares the hearer to interpret new information in a way that might fit any of a variety of frames deemed pertinent to the Royal Navy property, in which case the frame only becomes manifest when information that might fill it is explicitly mentioned. I make no claim either way, as it doesn't affect the resulting interspace access.

When an entity in a higher space accesses a mapped entity in a lower, subordinate space, we may call it downward linking, or *downlink*. The same process done from lower to higher may be called *uplink*. No matter the direction of access, the referent that is explicitly mentioned in order to access its mapped counterpart is known as the *trigger*; the element that is so accessed is known as the *target*. In the above example, the trigger (a_1) is accessing the target (a_2) via downlink, so the connection between the two referents is shown as a directional arrow. Another way to describe this access process would be to say that the target is accessed from the perspective of the trigger. "Perspective" here refers to the use of the trigger as the funneling entity pushing information toward a linked space. I normally avoid talking about the Access Principle in terms of perspective-orientation, as it enters murky territory with regards to how we understand the relationship between participants and things like volition and intentionality. With that said, however, I find it important to acknowledge the language of "perspective", since it plays a role in explaining some of the purported functions of ICPs that I discuss in later sections (see especially the Subject Point-of-View (SPOV) function in §3.2).

1.4 Key terms and cognitive linguistics

Throughout this thesis, I use the term *base participant* or *base referent* to refer to the "real" participant – i.e., the physical "subject", as an actual, extant entity. This relates to the idea of *schematization*, which is a less granularly detailed abstraction of a given element (*chicken* may be a particular element; a schematized representation of this would be *foul* or even *bird* – note that there may be multiple levels of schematization). I owe the term *base* to a number of sources, among them Langacker (1987), whose *base* designates the foundation or scope of a predication (Langacker 1987: 183). This *base* is the general context information providing the background for understanding a more-prominent *profile* element (Langacker 1987: 118–119). The *base* and

profile together constitute the full picture of an expression's semantic value (Langacker 1987: 183). "Base participant" also alludes to the related idea of a *base space*, which as I noted above is the starting place of a discourse-oriented network of mental spaces. This *base space* is the root mental space that helps frame the discourse, and it and its contents are accessible to entities contained in other subordinate mental spaces. This accessibility is mediated by the Access Principle. By speaking of a base participant or base referent I acknowledge the concept of cognitive linking that undergirds both Langacker (1987) and Fauconnier (1985; 2007), along with the idea that there is a "home space" – the *base* – from which other entities draw meaning, and which themselves are also affected by their subordinate entities.[8]

I offer a fuller explanation of the participant structure of middle situation types in §2.1 below; in short, however, there is reason to believe that middle verbal events are often expressed as involving two participants, one more agentive and the other less agentive. The more-agentive participant is typically given titles like *initiator* (instigator, etc.), while the less-agentive is typically called an *endpoint* (recipient, etc.). *Initiator* and *endpoint* are especially common terms, and they help make the directionality of force transfer in a middle verbal event apparent. However, I find they risk over-specifying the often-imprecise thematic role of the participants in question. Furthermore, thematic roles are not static; rather, they may be modified by changing how the verbal event is construed. Doing so ultimately affects how we interpret the level of volition of the event's participants, which plays a role in how the event is interpreted.[9] Because

[8] This focus on cognitive links and interdependency seems to be shared by others: see, for example, the "base scenario" of Tuggy (2007: 105).

[9] See especially §3.3.1 on the connection between ICPs and mirativity.

of this, I find it useful to highlight the directionality of force transfer in a way that avoids terms like *initiator* and *endpoint* that might point to more specific thematic roles.

There is little consensus concerning the nature, number, and hierarchical organization of thematic roles. Numerous contradictory and mutually exclusive systems have been proposed (see *inter alia* Fillmore 1968; Foley & Van Valin 1984; Givón 1984; Bresnan & Kanerva 1989; Jackendoff 1990; Dowty 1991; Van Valin 1993; Goldberg 1995; Davis & Koenig 1998; Culicover & Jackendoff 2005; Van Valin 2005). This makes assigning thematic roles to participants in [+ ICP] constructions difficult. Even assuming we can confidently determine an appropriate hierarchical organization between thematic roles, it is unclear exactly how the thematic roles in that hierarchy are affected by changes in event construal. This problem, which has also been noted by Croft (1998; 2012) and Dowty (1991), becomes especially clear in cases where there is a mismatch between a participant's semantic role and the role they are construed as having in a given utterance; an example of this would be cases where a semantic experiencer is construed as an agent. Ultimately, this leads to confusion in how to identify participants in middle events.

I sidestep these challenges by adopting a relative mapping approach, following Dowty (1991), Levin and Rappaport Hovav (2005), and using markings derived from Foley (2007). With this approach, I use [+ A] to mark the more-agentive participant, and [– A] for the less-agentive participant. These markings relate to how verbal participants are perspectivized: either as actor ([+ A]) or as undergoer ([– A]).[10] For transitive expressions in which both

[10] Actor/undergoer – along with related terms like P(roto-)Agent/P-Patient, or the agonist/antagonist of Talmy (1988) – are often given as discrete points in a globally valid hierarchical organization of roles. Evidence that such roles are globally valid, or that any hierarchy exists beyond the local level, is mixed, and I prefer to avoid terms that

arguments are core arguments of the verb, the more-agentive participant will be expressed as the [+ A] participant and the less-agentive participant will be expressed as the [– A] participant. Sorting participants into [± A] poles makes it clear which participant is construed as the main instigator while also indicating the direction of force transfer.[11]

2. Characterizing ICPs from cognitive linguistics

In this section, I show how ideas from cognitive linguistics – especially mental spaces and the Access Principle – can be used to account for ICPs in a variety of environments. These same principles, along with consideration of other cognitive categories like working memory and attention management, explain what would otherwise seem to be completely unrelated functional uses of the ICP. To establish the validity of describing ICPs in terms of mental spaces and the Access Principle, I look first to middle verbal events, which are a common environment for ICPs. In particular, I explore the participant structure of such events and argue that they represent a splitting of the unary base participant into separate, force-differentiated mental instantiations. I show how the relationship between these mental instantiations (i.e., the different participants profiled in [+ ICP] middle verbal events) is mediated by the Access Principle. I then apply the same theoretical model to non-middle verbs, with the goal of validating the use of cognitive linguistic principles to describe the form, and function, and use-environment of ICPs.

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might be confused with that perspective where possible. As I argue above, relative agentiveness marking highlights force transfer without making claims about particular roles.

[11] Note that though in some cases "±"indicates the presence or absence of a given characteristic, here I use it in the same way we mark electrical charge; for both electrical currents and transitivity relationships, FORCE flows from the positive [+] pole to the negative [–] pole. Unlike an electrical current, both poles of the transitivity relationship might be characterized by a high degree of agentiveness; nevertheless, one of those participants may be more agentive (or may be construed as such), in which case FORCE flows conceptually from that pole toward the other.

2.1 Building a theory from [+ ICP] middle verbal events

In this section, I use available literature to affirm the observation that ICPs are strongly (though not exclusively) associated with middle verbs. This is important because it validates using [+ ICP] middle verbs as the starting point for my ICP analysis. In the following paragraphs, I outline arguments from the literature establishing the association between ICPs and middle verbs. I follow this by arguing that middle verbal events can be validly interpreted as semantically transitive, regardless of whether or not they are coupled with an explicitly expressed second participant. Given the nature of middle events, I also demonstrate from this point that the two participants need not exist in a "real" sense; rather, they only need to exist as mental instantiations of the base participant. From there, I do two things: first, I show how the ICP represents a [– A] instantiation of the base participant, existing in a separate mental space from the [+ A] instantiation; second, I show how the Access Principle mediates the relationship between the ICP and its base referent. Finally, I return briefly to consider the way "real" participants can be split into force-differentiated participants even in cases where there is no obvious candidate for a semantic force-receiving participant. This entails examining instances of ICPs used with non-middle verbs, and establishing why doing so is theoretically valid, even if the motivation for doing so is still conditioned by grammatical or pragmatic considerations.

2.1.1 ICPs and their relationship to middle verbs

In the literature, ICPs frequently occur with middle verbs of the following types, drawn from Kemmer (1993); note that I group these into four functional classes of my own making:

Table 1 Middle situation types[a]

Class	Situation type	Examples/comments
Motional	Translational motion	*climb up*; *go/leave*; *walk/stroll*; *fly*
	Non-translational motion	*stretch one's body*; *turn*; *bow*
	Changes in body posture	*sit down*; *kneel*; *lie down*; *rise/get up*
Affective	Indirect/self-benefactive event	*acquire*; *lay claim to*; *ask/request*; *take for oneself*
	Naturally reciprocal event	*meet*; *embrace*; *wrestle*; *converse/agree*
	Grooming/body care	*wash*; *get dressed*; *shave*
	Spontaneous event	*germinate/sprout*; *come to a stop*; *become*
Expressive/cognitive	Emotive speech action	*complain*; *lament*
	Other speech actions	*confess*; *admit one's guilt*; *be boastful*; *boast*
	Cognition	*think*; *consider*; *ponder/meditate*; *believe*
	Emotional reaction	*become frightened*; *be angry*; *grieve/mourn*
Referential	Logophoric reference	Marks participants in a dependent clause that are coreferential with subject of main verb
	Passive/impersonal/facilitative	Marks subject as corresponding to patientive participant of unmarked root verb

[a] All examples taken from Kemmer (1993: 16–20)

Kemmer's classifications are more granular than required for my purposes; in particular, the distinction she makes between "emotive speech actions" and "other speech actions" and between emotional reactions and cognition seems unclear. I suspect that the ostensible differences between them are simply variant outworkings of a single underlying principle. This explains why I group the different middle situation types together into the four functional classes given above. These functional classes are intended to guide my interpretation of the role played by a given middle situation type in communication.

My work in this section is indebted to Leger and Zoch (2011), who examined data from several decades of ICP research, and found examples of ICPs with at least six of Kemmer's thirteen middle situation types, covering the motional, affective, and expressive/cognitive classes. In a quick survey of other works, I find evidence of three additional situation types. These are: cognition – *forget*, in Storch and Coly (2014: 6); non-translational motion – *turn*, in

Schuh (1998: 178); and other speech acts – *whisper*, in Schuh (1998: 181). This leaves only four [+ ICP] middle situation types absent from the literature: emotive speech actions, naturally reciprocal events, and the two members of the referential class. I have not found any examples of emotive speech actions in the literature, but I have no reason to suspect that they would be incompatible with ICPs in principle.[12] In any case, I find that ICPs are well-attested in the expressive/cognitive class. Naturally reciprocal events are absent from the datasets I have available, but I find this appropriate given how I analyze ICPs in the following sections.[13] This leaves only the referential situation types. The passive/impersonal/facilitative (PIF) middle uses a middle marker[14] to support an O argument being expressed as an S_o argument (Kemmer 1993: 20). This is different from what we typically observe with ICPs. When [+ ICP] constructions have two expressed participants, the ICP – the [– A] index – is encoded as the O argument. When only a single participant is expressed, the ICP is removed and the participant that would have been encoded as the [+ A] index of the [+ ICP] construction is treated as the S_a argument of what is now a [– ICP] construction. In other words, the normal counterpart to a two-participant construal with the ICP as the O argument is a one-participant construal with no ICP at all, and with only the [+ A] index of the [+ ICP] construction given explicit expression as the

[12] Both emotive speech actions and emotional reactions can be interpreted as overwhelming semi-volitional mental state changes. There is room for future research to explore this more fully.

[13] Naturally reciprocal events already have a second "real" participant, completely separate from the agentive participant. The agentive participant instigating the naturally reciprocal event is also the patient of the same action, initiated by the other participant; nevertheless, their affectedness comes from an action instigated by a completely separate real-life participant. This is distinct from what I believe happens with ICPs, which could explain the lack of [+ ICP] naturally reciprocal events in the literature. An alternative explanation may be that some [+ ICP] languages employ a separate reciprocal marker in such contexts, effectively preempting use of the ICP.

[14] Defined here as a language-specific morphosyntactic marker associated with the expression of semantically related middle situation types (Kemmer 1993: 15).

S_a argument. The PIF middle is defined in such a way that it only applies to cases where the O argument becomes an S_o argument, which is generally not the case for ICPs.[15] Since the PIF middle doesn't account for the argument indexation we normally see with ICPs, I am unsurprised to see no evidence of it in the ICP datasets I have available.

This leaves only logophoric reference middles. This situation type constitutes a form of extra-clausal reference. For these middle situation types, a verb in the subordinate clause is marked with a specific "Kemmerian" middle marker, which refers to an explicit participant reference appearing with a separate verb in the matrix clause. The logophoric reference middle, as Kemmer defines it, requires the existence of a middle-marked predicate. In such situations, the middle marker indicates that the verbal participant is coreferential with the participant expressed for a different verb in another clause. I consider this a type of extrinsic definition, since the middle marker is only fully defined with reference to a participant given syntactic expression elsewhere. Based on my reading of Kemmer's examples, the middle marker in these situation types does not constitute a full participant reference in its own right. Furthermore, I see no evidence in the literature that ICPs are defined by arguments given explicitly in a separate clause. Schuh (2005: 22), however, notes that ICPs seem to do this with arguments given in the *same* clause. What links both perspectives is that the element in question is defined extrinsically – that is, it is defined with reference to information not available from the element itself. While I argue later in this thesis that the locus of this defining information isn't the other syntactic

[15] I hedge with "generally" because there is limited evidence that the ICP might be able to appear in the [– A] syntactic position without a [+ A] argument. This is seen in clause 56a of the Appendix. If this is a legitimate case of ICPs appearing without an explicit [+ A] participant, then that could arguably be an example of the ICP used in a way consistent with the PIF middle. With that said, this may be conditioned by other processes, and as such bears further research. For now, the validity of expressing the ICP without a corresponding [+ A] argument – along with any bearings that might have on demonstrating use of the ICP with the PIF middle – must remain unresolved.

participant, but rather the "real" participant to which they both refer, the fact that both Schuh's perspective and Kemmer's logophoric reference middle depend on a similar cognitive mechanism suggests functional similarity between the two. This similarity, considered together with the other examples of ICPs occurring with Kemmer's middle situation types I have given above, support using middle verbs as a starting point for my analysis.

2.1.2 ICPs, mental space structure, and the transfer of FORCE

In the previous section, I examined the literature and available data to make a case for associating ICPs with middle verbal events. Though this is not the only environment ICPs are found in, it is a helpful one. This is because there are certain characteristics of middle verbal events that make my larger theoretical position more readily demonstrable. In this section, I examine the various ways of expressing the core arguments of middle verbs. Doing this lets me draw attention to the nature of self-affecting action and how that ought to inform our analysis of the participant structure of middle verbs. In particular, my reasoning reflects others in the literature in arguing that middle verbs are semantically transitive. Though I offer a more nuanced perspective on this in §2.1.3 and §2.2, arguing outward from the assumed transitivity of middle verbs proves to be helpful in building a theoretical foundation for analyzing less straightforward cases. In further support of this, I present a theoretical argument consisting of diagrams modelling the transfer of the property of FORCE. I then apply this model to both a prototypical transitive and a middle verb, showing that each can be validly interpreted as encompassing semantic transitivity. For middle verbal events construed in this way, I argue that the second participant is simply a mental instantiation of the base referent (in particular, the [– A] instantiation). When this participant is tacit or implicit, it's because the speaker has decided to not profile it; in cases where it is explicit, it's because the speaker has decided to

profile it. There are a number of reasons a speaker might decide to profile this participant, some of which I discuss in §3.

There is significant variation between languages in how the participants of middle verbs are expressed. This is evident in the following examples from French and English:

(7) a. *il* *se* *lave*
3SG.M REFL wash
'He washes himself.' [syntactic object is present, referencing the semantic object]

b. *he* *washes*
3SG.M wash
'He washes.' [no syntactic object is present, but still has a semantic object]

These examples illustrate two approaches to expressing middle semantics, outlined by Kemmer (1993: 58–59): in (7a), the French verb *laver* is treated as an ordinary two-participant verb alongside special additional marking to indicate that it is self-affecting; in (7b), the English verb *wash* is interpreted as inherently self-affecting in the absence of explicit participant profiling to the contrary (i.e., *He washes* vs. *He washes the dog*). Kemmer extends this observation to argue that certain verbs, especially those dealing with grooming and changes in body posture, naturally pattern together with either (7a) or (7b) depending on how strongly they imply self-affecting participation. What I deem important is that, in either case, a second, force-receiving participant is assumed to exist, whether it is explicitly profiled or not.

These two participants exist in a transitive relationship. Transitivity involves the transfer of force from one participant to another, embodying what García-Miguel calls "an asymmetric energetic interaction between two participants" (García-Miguel 2007: 764). This definition is similar to ones adopted by Kemmer (1993), Rice (1987), Hopper and Thompson (1980), and

others. Such "asymmetric energetic interactions" are readily apparent when they involve two distinct "real" participants – i.e., a perfectly individuated agentive participant acting on (and modifying) a perfectly individuated patientive participant (García-Miguel 2007: 764). Nevertheless, force transfer between participants can exist even with the mentally instantiated participants of middle verbal events. In English, this is easiest to see with verbs like *wash* or especially *shave*; absent explicit marking to the contrary, the act of shaving is typically understood as being carried out on the self. This is because there is a strong sense that a) shaving is something one does to one's own benefit (i.e., not as directed against another, except in exceptional circumstances), and b) the action of shaving requires that a thing of some sort – some part of the body (e.g., the face) – be shaved. For the event of *shaving*, the person performing the action of shaving is also the person upon which the action of shaving is being carried out. Thus, the "real" flesh-and-blood participant is understood in terms of two roles: both as an exerter of force and as a receiver of force, simultaneously. Both this [+ A] version of the "real" participant and the [– A] version are mere mental instantiations of the base referent – there aren't suddenly two physical human referents involved. And though in the case of *he shaves* the force-receiving version of the "real" participant isn't explicitly profiled, that participant exists regardless, as a function of how we understand the action of shaving to be carried out. This relates to what we observe with verbs like *go*, which are frequently expressed with ICPs; here, the base participant is construed as being split into a [+ A] version of the self and a [– A] version, the self-as-body. This conceptual splitting of the "real" participant into two force-differentiated mental instantiations is the perspective implicitly adopted by Kemmer (1993: 58), when she analyzes the verb *going* as involving volitional action performed by a force-initiating participant that is carried out upon the self (interpreted as a force-receiving

body). Apart from Kemmer's validation of the split-self perspective, I also have reason to believe it is the operating perspective at work in a number of West African languages, where the self-affecting nature of middle events is marked through the use of the clitic word "body", expressed together with an attached participant index.[16]

The validity of interpreting middle verbal events as semantically transitive is made especially clear when diagrammed. In the diagrams below, I show how, given two participants interacting in the context of a verbal event, a conceptual property called FORCE is transferred from one participant to the other. This transfer of FORCE represents the completion of the verbal action as applied against, upon, toward, or to the benefit of the "receiving" participant. This transfer is shown in the abstract in example (8) below, with FORCE moving from the [+ A] participant (where it is located before the event occurs) to the [– A] participant (where it is located after the event occurs). This is consistent with the progression of the verbal event from its ante-state to its post-state. Example (9) show this model applied to a prototypical, two-participant transitive event. Example (10) does the same, but for a middle verb of the affective class:

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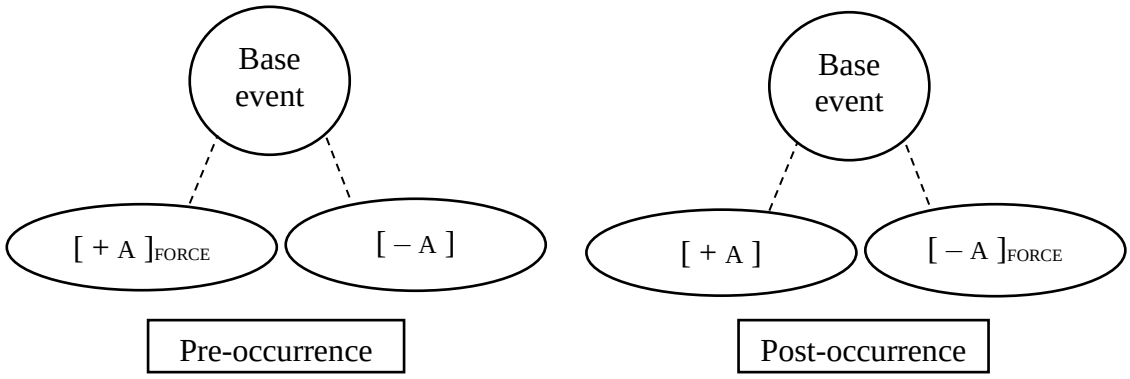
[16] Two examples of this from Bole (West Chadic, Nigeria); note 1) the cliticization of the lexical word *body* to indicate self-affect, and 2) the repetition in (b) of the index *-mú*, which is consistent with its different referential uses (i.e., as a subject index affixed directly to the verb and as an index in the cliticized *body*+index "ICP" construction):

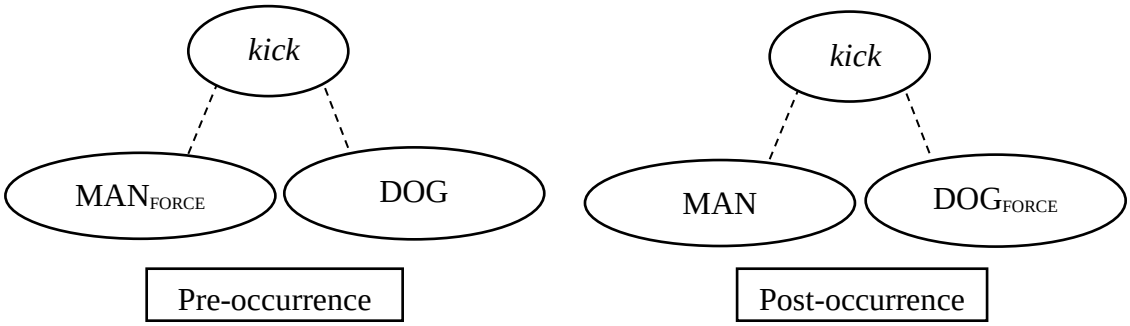
(ii) a. *pet-é=jì:-tò*
go_out-FUT=body-3SG.F
'She will go out.' (Bole, West Chadic; Lukas 1971: 12; in Frajzyngier 1977: 79)

b. *'yòr-á:-mú=jì:-mú*
stand-PL-1PL=body-1PL
"(Let's) stand!" (Bole, West Chadic; Ryan 2019: 140)

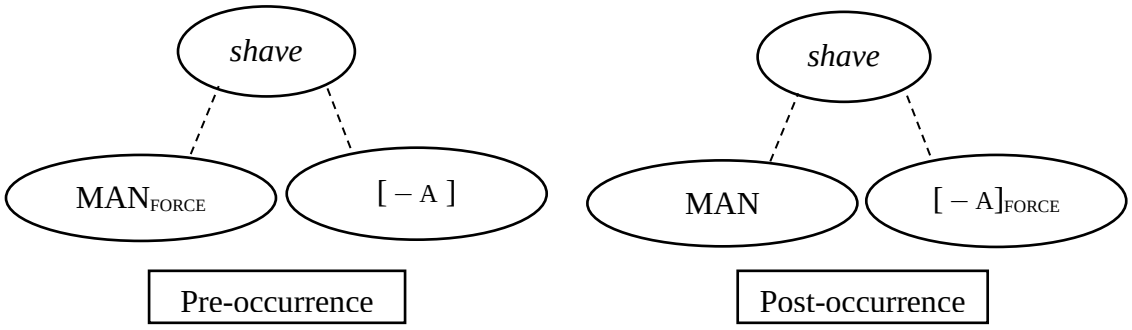
(8) Model representation:



(9) ‘The man kicked the dog.’



(10) ‘The man shaved.’



The transfer of FORCE diagrammed in (8) above is a property of transitive semantics. As such, it applies equally to situations like (9), where the [– A] and [+ A] participants are completely different, and in situations like (10), where there is no "real" [– A] participant to express, but which, as I've argued above, may be validly interpreted as involving such a participant. While middle verbal events like that in (10) may not have a second "real" participant existing alongside the base participant, the existence of the transferred FORCE element (as attached to the conceptual [– A] entity) gives theoretical license for a speaker to express this transferred FORCE. This is done by explicitly expressing some sort of "container" or entity to which that FORCE can be understood as attached. Incidentally, this may also help explain why the ICP is optional in many [+ ICP] languages; for verbs that are strongly understood to affect the base participant as both force-exerter and force-receiver (as is the case with verbs like *wash* and *shave* in English), the existence of the base participant as an affected entity may be so assumed (i.e., so present and cognitively accessible) that explicitly profiling the transferred FORCE with an ICP may be processed as a sort of "doubling up" on that information. In cases like this, highlighting transferred FORCE by explicitly profiling it – when it is already assumed that the base participant is involved as an entity receiving that FORCE, even in the absence of explicit profiling – would very likely be interpreted as emphasis.[17]

2.1.3 ICPs and their relationship to other participants

In this section, I use the mental space structure of [+ ICP] constructions to show how the Access Principle accounts for not only the relationship between the ICP and its base referent, but also between the ICP and its associated [+ A] participant. I have already built my case for

[17] This would likely produce a range of effects, some of which I discuss in §3.3.

interpreting the base participant in middle verbal events as being conceptually split into two separate mental instantiations, representing the [+ A] and the [– A] participant. In middle verbal events, these two semantic participants exist in an asymmetric energy transfer relationship. Even though there is only a single "real" participant to which both mental instantiations are mapped, the nature of middle semantics points to an underlying transfer of FORCE. I argue that this relationship constitutes semantic transitivity, and gives validation to explicitly profiling each of the two mental instantiations, even though they are mapped to a common base participant. I examine these relationships in this section, and in so doing show why the [+ A] index and ICP are indexed in the same syntactic positions occupied by the syntactic subject and direct object (respectively). I also engage with the idea that ICPs are coreferential to the syntactic subject, and argue instead that the relationship between the two participants is more appropriately explained as common coreference to their shared base participant.

First, I address the relationship between ICPs and other objects. This observation has been made explicitly by Storch et al. (2011: 6), who link ICPs to the object pronoun on the basis of a) their inherent force-receiving nature, and b) their common syntactic expression. In addressing this, I look especially to Croft (2012), who argues that the key determiner of whether entities with particular participant roles are realized as subject or object depends on where they exist relative to one another in the causal chain (Croft 2012: 4). In other words, for a given verbal event construal, the participant construed as directing FORCE (i.e., the one closer to the beginning of that verb's causal chain, the [+ A] argument) is realized as the syntactic subject, and the participant construed as receiving FORCE (i.e., the one nearer the end of the causal chain, the [– A] argument) is realized as the syntactic object. Croft's argument supports my earlier

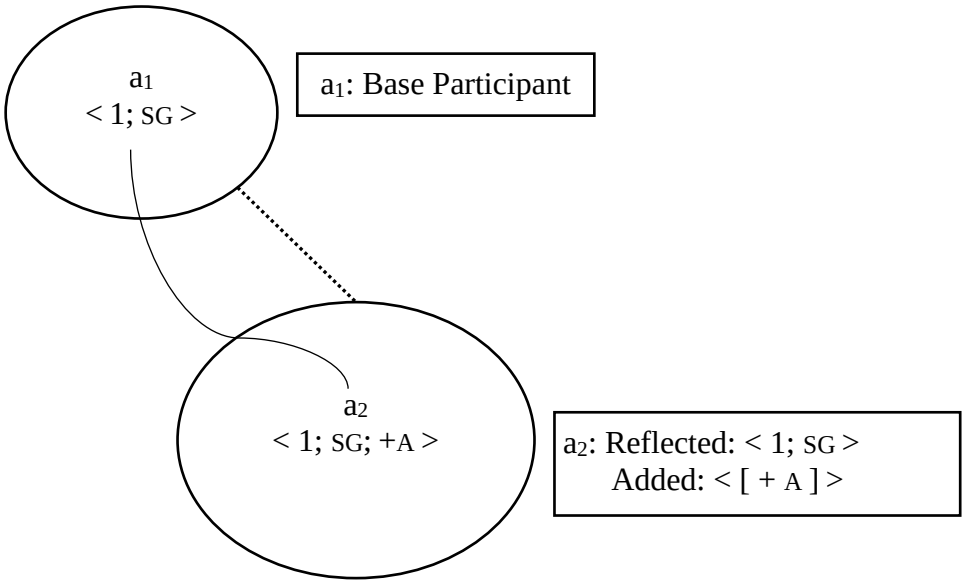
appeal to FORCE transfer and the structure of verbal events in transitive construal; the participant associated with ante-state FORCE, near the beginning of the verb's causal chain, is realized as syntactic subject, while the participant associated with post-state FORCE, near the end of the verb's causal chain, is realized as syntactic object. Thus, for middle verbal events where the ICP is explicitly expressed, we expect (and observe) that this participant will be indexed post-verbally, a syntactic position common to force-receiving participants in [+ ICP] languages.

The second point I address is my claim that the Access Principle offers the best explanation for why the [+ A] and [– A] participant in [+ ICP] constructions match each other in person, number, and gender. The existence of shared participant information between ICP and [+ A] index has been noted countless times in ICP research, at least as far back as Newman (1971); it's ultimately the reason for the "copy" part of the name Intransitive Copy Pronoun. Yet I find that there are certain challenges to this perspective. The most important of these come out of Van Hoek's (2007) work on the acceptability criteria of coreference. The argument I derive from her work runs (briefly) as follows: for two referents to be accepted as valid, appropriate forms of coreference, one must be in the dominion of the other – that is, one must be interpreted from the perspective of the other, as when a pronoun is used in place of a cognitively accessible full nominal. The most important element in determining whether or not one referent is in the dominion of the other is *prominence*, which is a measure of cognitive availability and relative salience. Van Hoek's definition of dominion assumes that the dominion-exercising referent is offstage, but prominent, or highly accessible (Van Hoek 2007: 898). This introduces two related challenges: first, since both the ICP and the [+ A] index are explicitly profiled, neither is clearly offstage to begin with; second, since both the ICP and the [+ A] index are explicitly profiled, neither is clearly more salient than the other; thus neither is clearly greater in prominence. This

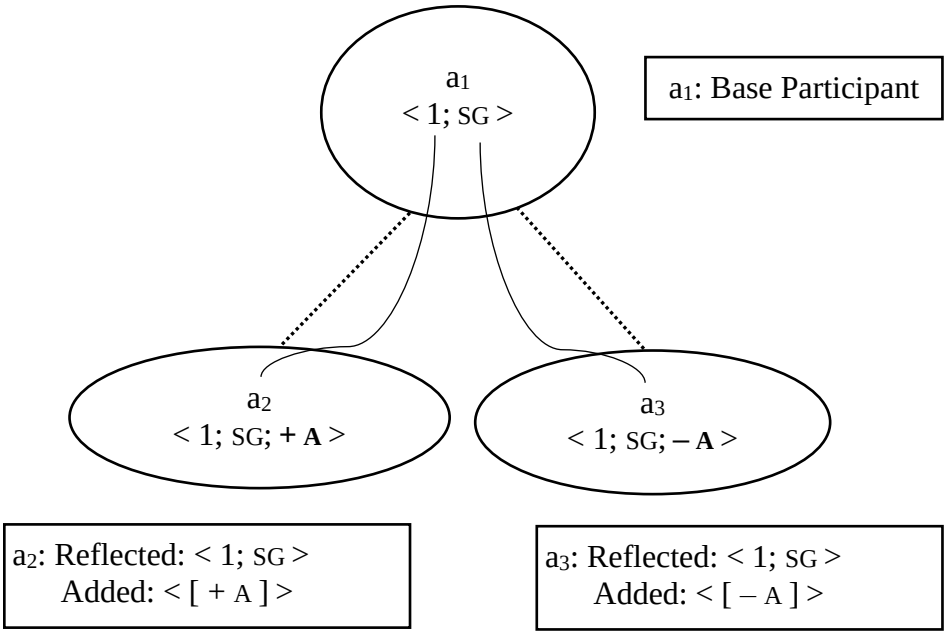
is backed up by Langacker's (1987: 234) observation that standard measures of determining participant prominence, such as trajector/landmark alignment, tend to be less applicable to verbs that fit the expressive/cognitive class. In other words, the kinds of verbs that are consistently associated with ICPs don't have a clear way of measuring prominence, which means (following Van Hoek's acceptability criteria) they don't have clear criteria for measuring dominion.

The lack of a clear dominion relationship between the ICP and the [+ A] index suggests to me that the common characterization of ICPs and [+ A] indexes being coreferential to each other is questionable, if not outright untenable. A ready alternative to this analysis is provided by framing the ICP/[+ A] relationship in light of the Access Principle. This alternative argument has the benefit of accounting for the evident coreference between the two participants (i.e., the relationship evinced by the existence of shared participant information) but without positing a coreference relationship that would be difficult to support from theory. From the perspective of the Access Principle, [+ ICP] constructions consist of a base participant being construed as both an affected and non-affected affecting entity. Each of these two participants repeats information about the base participant, and each adds additional linguistic information (e.g., constituent order) used to mark the role that the mental instantiation of the base participant is construed as having. Given a verbal event with a single base participant: if that verbal event is construed as having a single participant (see (11) below), information about the base participant is expressed in the mental instantiation of that participant, along with information that encodes its role. If that same verbal event is construed as having two participants (as in (12) below), then information about the base participant is expressed in both mental instantiations, along with information that feeds into how each participant's distinct role is encoded:

(11) ‘I went (out).’



(12) *nà* *pòrò-no*
1SG go_out.AUX1-ICP
‘I went out.’
(Kanakuru, West Chadic; Newman 1971: 190)



As another advantage to this analysis, the base participant is both highly accessible and completely offstage, making it a valid choice for the dominion-exercising referent. And since both the ICP and the [+ A] index are accessing and reflecting information about the base participant along separate referential pathways, there is no longer any conflict caused by both profiled participants being equally prominent.

As both of the force-differentiated participants in middle verbal events are coreferential with the base participant, [+ ICP] constructions are arguably a type of distributed participant reference. This is because in such constructions, the single base participant is being given expression in two syntactic positions, corresponding to the two force-differentiated mental instantiations of that base participant. Distributed participant reference is not without support, having been discussed by Haspelmath (2013), Ryan (2019), and Van Hoek (2007). Haspelmath (2013) argues that free person forms (i.e., full NPs and non-clitic pronouns) regularly occur alongside argument indexes that encode the same participant information. Ryan (2019: 139–140) discusses ICPs and distributed reference (as "multiple exponence"), noting that both the subject index and the index in the ICP construction don't amount to "vacuous repetition", but rather have different uses; in the terms I have used in this thesis, the first appearance of the index accesses the base participant as the [+ A] participant, while the index that makes up the ICP construction accesses the base participant as the [– A] participant.

2.2 Extending the theory to cover non-middle verbal events

In the preceding section, I examined [+ ICP] constructions expressing middle semantics to provide evidence for a particular mental space structure. From this mental space structure, I built a model of inter-participant relationships, mediated by the Access Principle, that I find accurately accounts for the apparent coreference of the ICP and its associated syntactic subject. This was

done with reference to middle verbs (as I defined them in §1.2). But ICPs are associated with a range of different verbs, including situation types that are only marginally "middle". The analysis I have presented above should theoretically be valid even with these types of verbal events that fall outside the middle core. In this section, I test my analysis against these types of verbs in order to demonstrate that ICPs can theoretically occur with any type of verb – regardless of whether or not it would typically be considered a middle verb – as long as it is construed as affecting the base participant as both a force-exerting and a force-receiving entity. Establishing this obviates the need to determine whether and how a given verb fits Kemmer's middle situation types. In such cases, the existence of the ICP is prima facie evidence of self-affect, which is the defining feature of middle verbs. This nullifies any expectation in our analysis that ICPs should only be able to occur with a specific group of well-defined verbs, and makes analyzing ICP use with any verb significantly easier: if an ICP exists, it is because the verbal event is interpreted as being self-affecting on some level.

Although many middle verbal events naturally suggest the existence of a second participant, as I demonstrated in previous sections, this second participant is essentially just a container used to profile post-state FORCE. Middle verbs may have a strong candidate to fill the [– A] syntactic position and allow for the profiling of post-state FORCE; however, there is nothing prohibiting non-middle verbs from doing the same thing. This is ultimately what we observe. Languages are free to adopt any of a variety of strategies for profiling post-state FORCE. One such strategy is reflected in (13) below, which uses a reflexive participant reference as a container or vehicle, allowing the transferred FORCE to be explicitly profiled. I argue that ICPs have a similar function, though they are dissimilar from the particular reflexive vehicle used in (13) in key respects. Another strategy adopted by some languages to express transferred FORCE

is to use a dummy object, as in (14). These dummy objects differ significantly from ICPs, a point I discuss further in §3.1 below:

(13) *þykk-ja=sk*
think-INF=REFL;ACC
'Think.'
(Icelandic; Kemmer 1993: 19)

(14) I thought a thought.

I find (13) in particular paints a clear picture of the ICP as a means of profiling post-state FORCE. This is because the *=sk* middle marker seems to have developed diachronically from a standalone logophoric reflexive pronoun (Kemmer 1993: 182); in other words, both the *=sk* middle marker in (13) and the ICP profile post-state FORCE by expressing the self-as-affected-entity.

In (14) I see evidence that even prototypically one-participant events can be expressed as two-participant events. This supports Storch et al.'s (2011: 7) observation relating example (14) to other, similar strategies for avoiding intransitive syntax. The most important thing I see in both (13) and (14) is that a second, force-receiving entity – the [– A] participant – is chosen and given explicit expression in order to profile post-state FORCE. In (13), this force-receiving entity is the self-as-affected-entity; in (14), the force-receiving entity is the "thought", which is a sort of dummy object, and which follows the *=sk* in (13) in functioning as a vehicle for profiling where the FORCE has gone to. This same idea is, perhaps, even more evident in (15), where the ICP and the possessive index are expressed identically:

(15) *mbɔ́* *á-ɣɔ̃́y* *à-kpíɣìwáy=↓mbɔ́* *à-zɨ́=↓mbɔ́*
02.PRO 02.SC-pick 06A-small.hoe=02.POSS 02.SC-go=ICP
'They picked their small hoes; they went.'
(Dũya, Benue-Congo; Marggrander 2018: 183)

Here, the possessive index and the ICP both indicate that the preceding element is applied toward or against the participant indicated by the suffix (i.e., the possessive index/ICP); in other words, FORCE is transferred conceptually from the preceding element, with the participant indicated by the suffix as the endpoint of that transferred FORCE. With the ICP in particular, the participant against which this FORCE is directed is the [– A] instantiation of the undifferentiated base participant (the same base participant it shares with the pre-verbal [+ A] index). It is this [– A] index that acts as a container allowing post-state FORCE to be profiled.

Thus, on a theoretical level, a [– A] mental instantiation of the base participant is a valid candidate for profiling the location of the verb's post-state FORCE. Thus, as long as it is considered a licit option within the language, having an ICP appear with non-middle verbs is totally acceptable from a theoretical standpoint. This is important because it offers an explanation for [+ ICP] constructions involving non-middle verbs (i.e., verbs not associated with Kemmer's middle types). I give some examples of possible non-middle verbs below:[18]

(16) *bònò* *bòkké=jìːnì*[19]
house burn:SBJV=ICP
'The house burned (down).'
(Bole, West Chadic; Schuh & Gimba 2001: 10)

[18] Among these are candidates I have found in previously unpublished discourse data from Ishɛ (Benue-Congo, Nigeria). Note the [clause number] for these latter examples, allowing cross-reference against the appendix.

[19] Technically, this should be two separate morphemes, *=jìː* and *-nì*, glossed as =body and – 3SG.M, respectively. I have followed Schuh (2017: 285) in glossing them as a single entity so as to not obscure the fact that it functions as a single unit, and is employed in a way that mirrors ICPs in other languages.

(17) *múm* *ì-sí-fás=ű́* *ú-gbɛ́tà=↓ŋó*
1SG.PRO 1SG-NEG.FUT-pay=ICP 03-salary=2SG.POSS
'I will not pay your salary.'
(Dũya, Benue-Congo; Marggrander 2018: 181)

(18) *à-zhéé* *à-shí=↓ké*
06A-tiredness 06A.SC-NEG.COP=ICP
'There is no tiredness. (I am fine.)'
(Dũya, Benue-Congo; Marggrander 2018: 181)

(19) *à* *na-łən* *sáy*
3SG[20] be_done-ICP AUX.FOC
'They are ripe.'
(Miya, West Chadic; Schuh 2017: 284)

(20) *máa* *faarà-łən* *à*
what happen-ICP INT
'What happened?'
(Miya, West Chadic; Schuh 1998: 199)

(21) *fa* *ta-səna-fə-uw*
2SG NEG-night-ICP-NEG
'Don't spend the night.'
(Miya, West Chadic; Schuh 1998: 91)

(22) *amma* *inte* *nahã* *e-jɛ̃-yir* *e-nɛŋ-e*
however 1PL.PRO PERF.NEG 1PL-see-1PL.ICP CL-place-DEF
'However, we have never seen the place.' [48]

[20] This is used like English "one" or French "on", and can appear (as it does in this example) together with the plural ICP *-łən* to refer to an impersonal or conceptual subject.

(23**)**	*ko*	*agɛ*	*e*	*i-nak*	*hã*	*k-a-yari-bɔɔ*	*i-nak*
						HAB-3PL-graze:X-	CL.PL-
	even	CL.PL:X[21]	AM	CL.PL-cow	NEG	3PL.ICP[22]	cow

'Even the Fulani don't graze their cattle there.' [69a]

(24)	*ni*	*a-teu*	*a*	*a-koi-she*	*hã*	*k-a-kaupi-bɔɔ*	*i-ram*
				CL-forest-		HAB-3PL-farm:X-	
	LOC	CL-center	AM	DEF	NEG	3PL.ICP	CL-farming

ni hum ba
LOC there NEG
'At the center of that forest till now, they don't usually farm there.' [66]

As I explained in §1.2, defining the line between middle and non-middle verbs is messy. "Ripe", "happened", and "burned (down)", in particular, could perhaps be understood as spontaneous events, which would make them members of the Affective class of middles. Kemmer (1993: 142) explicitly includes "ripen" as an example of spontaneous middle events, though it's unclear if that would apply the same way to a verb with the potentially more expansive meaning of "be_done". "Graze" and "farm" could arguably be self-benefactives (also part of the Affective class), depending on how the -X morpheme is understood. At a minimum, neither "see" nor "spend the night" – nor especially "pay" and the NEG.COP of (18) – seem to fit any of the middle classes particularly well, and as such are probably the strongest candidates for non-middle ICP

[21] Here and elsewhere, I use "X" to represent possible morphosyntactic elements of as-yet undetermined function. This also leaves the door open to the element in question being a simple phonological alteration of the preceding element, or any of a number of alternative analyses.

[22] Any candidate for the role of the *-i* in *yari* (or *kaupi* in (24)) is speculative. It may be related to the 3SG negative perfective paradigm, which is expressed using the negative *hã*, a pre-verbal third-person index *a-*, and a post-verbal suffix *-i*. This is far from conclusive, and it raises its own questions. The parallel with (23) argues for interpreting post-verbal *-bɔɔ* as an ICP, in which case this is a good candidate for being a non-middle verb with an ICP.

use. What is interesting is that even these verbs can be understood as being self-benefactive with only a little bit of imagination. This illustrates the problem with talking about verbs in categories like "middle" and "non-middle": verbs aren't universally "middle verbs" or "non-middle verbs", just like they're not universally transitive or intransitive. The only requirement for a verbal event to be interpreted as self-affecting is that it be understood as self-affecting. This seems like a tautology, but it is actually the key understanding that decouples ICPs (as a cross-linguistic phenomenon) from the expectation that they should only occur with certain verbs. The assumption of self-affect can be encoded lexically – such as with "shave" in English; it can also be encoded syntactically, such as through use of an explicit force-receiving syntactic participant. Cross-linguistically, some kinds of verbs are so commonly understood as self-affecting that they emerge as a pattern in typological analysis: i.e., changes in body posture, non-translational motion, etc., all of which are considered "middle verbs". This is part of what contributes to the idea that ICPs are mostly associated with certain verbs. Yet regardless of whether or not a given verb fits these common "middle" patterns, the mere fact that it is construed syntactically as self-affecting means that it is a verb of self-affecting action, just like the core "middle verbs". As long as there is sufficient motivation for the verb to be construed as self-affecting, and as long as doing so would not be considered illicit within the language, then essentially any verb can theoretically be expressed with a syntactic participant indicating self-affect.[23]

3. Analyzing the purported functions of ICPs

[23] Note that this doesn't universally license ICP use with all verbs. Each language has its own codified standards related to ICPs and verbs. It does, however, mean that ICPs are not inherently limited to certain verbs. ICPs indicate a particular relationship the base participant has with the verbal action, which is not limited to certain verbs. Thus, ICP use with "non-middle" verbs should not be considered impossible, or even necessarily surprising.

In the previous section, I showed how the ICP can theoretically be used with verbs falling outside the traditional core of Kemmer's middle situation types. This makes it clear that although the ICP is associated with middleness (in the sense of it explicating self-affecting action), it is not particularly useful to think of it as being associated with a narrow range of acceptable verbs. In some ways, this moves the foundation of ICP research, especially as given in Leger and Zoch (Leger & Zoch 2011: 36–42). I find this shift actually brings stability, rather than instability. ICP research is filled with widely varying uses, environments, and effects; for many of these, the connection to the middle seems tenuous and indistinct. But the result of the theoretical framework built in this thesis is that we no longer have to explain why a speaker is using the ICP with verbs nearer or farther from the core of Kemmer's middle types. In other words, we no longer have to explain why the ICP is judged as producing such unusual effects in some cases but not in others (if it is, in fact, just a middle marker); instead, we can just accept that the speaker is construing the verbal action as applying to the initiator of the action, making them an affected entity. This means the only question left to be answered is what the speaker intends to communicate by using the ICP.[24] The ICP builds or explicates a specific mental space structure, and that mental space structure is used to a variety of ends. In the following sections, I interact with the literature to show how my analysis of ICPs counters (§3.1), explains (§3.2), and extends (§3.3) some of the ICP's purported functions. In §3.1, I describe the superficial

[24] In reality, there are other questions. I've shown in this section that ICPs can theoretically exist in a range of environments. Yet in practice, they don't. I suspect that language-specific ICP use is a product of their diachronic spread, and may be constrained by other forms in the language having similar functions. One possible universal constraint is that they can't cooccur with a profiled O argument - see Schuh and Gimba (2001) on Bole (West Chadic, Nigeria). This may be related to the prohibition on using ICPs with 'sneeze', or 'cough'; my guess is that in such cases, the resultant "product" (i.e., the sneeze itself, or the cough itself) is so strongly accessible on a cognitive level that it is the obvious candidate for profiling post-state FORCE, and using another, weaker option would be judged incongruous and therefore unacceptable (for alternative explanation, see the footnote on "sneeze" in §3.1).

similarity between ICPs and cognate objects. I demonstrate that though these depend on a similar cognitive relationship, there are important structural differences between the two that suggest they should be carefully distinguished. In §3.2, I examine a recent trend in the literature arguing that ICPs encode Subject Point-of-View (SPOV). In particular, I show how the mental space and participant structure at the heart of my thesis also adequately explains how ICPs encode SPOV. This also entails creating a tighter definition of the "subject" highlighted by SPOV. In §3.3, I extend the Disjuncture-Navigation (DN) function of ICPs by organizing it into two broad classes and introducing a potentially new discourse use that has not yet been discussed in the literature. Doing this all has two results: first, it pares down the number of functions that are associated with ICPs; second, it shows that the cognitive relationships that make ICPs work are able to account for challenging uses – i.e., ICPs used with non-middle verbs and ICPs used to capture vastly different functions. Ultimately, this contributes to ICP research by moving the conversation toward a single root explanation that accounts for the wide variety we see in ICP use (though there will undoubtedly still be a need for research explaining why this root explanation manifests a certain way in specific cases).

3.1 Countering the purported Cognate Object (CO) function

Researchers have long pointed to the object-like nature of ICPs. This was given particular emphasis by Storch et al. (2011), who note in a summary of previous ICP diagnostics[25] that "ICPs tend to formally resemble the object pronoun", and that "this relates to cognate object constructions, where intransitivity is avoided through the use of a dummy object" (Storch, Atindogbé & Blench 2011: 6) Although more recent works touching on ICPs have emphasized

[25] E.g., Newman (1971), Wolff and Gerhardt (1977), Frajzyngier (1977), Jungraithmayr and Leger (1993), and Tuller (1997).

the relationship between ICP and subject,[26] rather than ICP and object, Storch et al. remains the most recent comprehensive diagnostic. My analysis supports some of Storch et al.'s conclusions; in particular, I agree that there are similar cognitive mechanisms at work with both cognate objects and ICPs. With that said, my analysis points to differences in the participant structure of cognate objects and ICPs that I believe calls for the two to be carefully distinguished. This results in a theory-tested means of bridging the gap between Storch et al.'s Cognate Object (CO)-function perspective and the alternative SPOV-function perspective.

First, I give a brief explanation of cognate objects. Cognate objects can be analyzed as a specific type of object nominalization, wherein the O argument of a transitive verb is a noun derived from the verb itself (Dixon 2005: 329). Dixon categorizes object nominalizations as either matching the form of their corresponding verb (25a) or else constituting a derived form of the verb (25b):

(25) a. spray a nauseous spray
VERB OBJECT NOM [same form]

b. bear a heavy burden
VERB OBJECT NOM [derived]

As shown in (26) below, the cognate objects of [+ ICP] languages tend to resemble Dixon's "derived form" object nominalizations:

[26] I discuss this more in §3.2.

(26) *ku-Ø* *dáp* *dábe*
3SG-AOR hit hit
'S/he hit a hit [i.e., she gave a hit].'
(Hone, Benue-Congo; Storch 2009: 129)

If we don't examine the mental space and participant structure of [+ ICP] constructions, the most straightforward analysis of ICPs is that they're mere syntactic placeholders, just like cognate objects. Ostensible evidence for this is that ICPs largely occur with "intransitive" verbs – that is, verbs with no clear candidate for a second participant – where they act as a syntactic participant in parallel to direct objects. Verbs in [+ ICP] languages tend to be neutral with regard to transitivity,[27] which means they can be used both as a verb with a clear second participant and as a verb with no clear second participant. This lends credence to the idea that ICPs exist only to give verbs-as-intransitives some syntactic participant to act against, though they have no "real" participant they're connected to. Thus, the thinking goes, ICPs and cognate objects are both syntactic realities without a clear semantic reality backing them up, used principally to avoid syntactic one-participant constructions (Storch, Atindogbé & Blench 2011: 7–8).

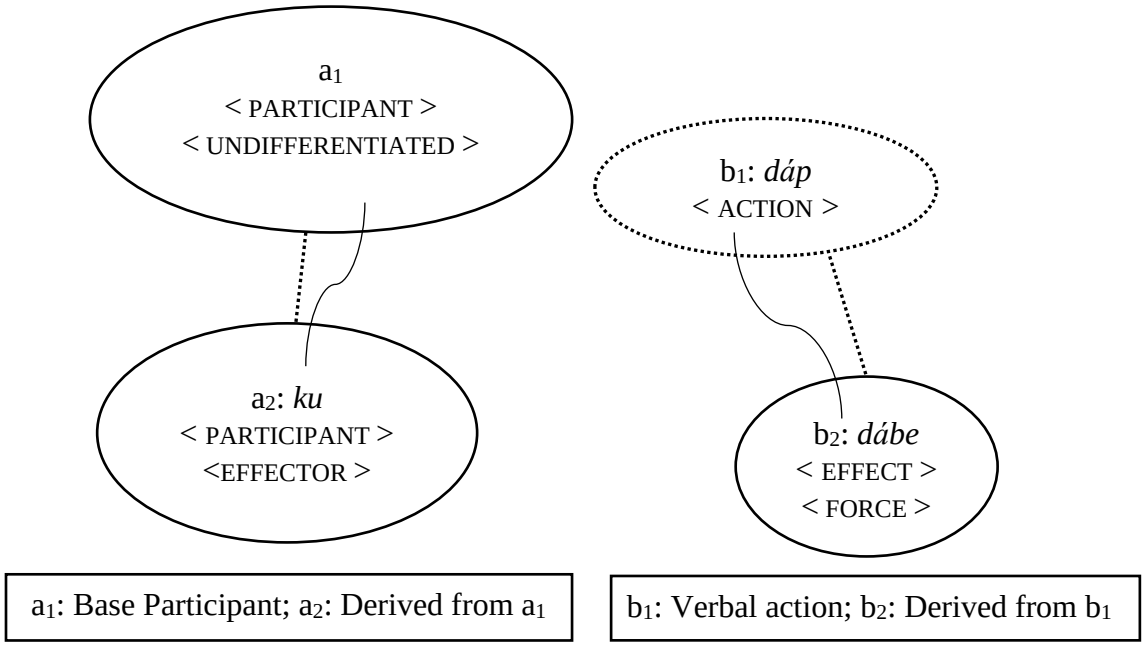
With that said, I think the mental space structure of both [+ ICP] constructions and cognate object constructions paints a slightly different picture. As I show below, ICPs and cognate objects differ in that while ICPs are a force-receiving instantiation of the base participant, cognate objects are a mental instantiation of the verbal action itself.[28] From this perspective, though both participants are vehicles for profiling post-state FORCE, cognate objects

[27] For more on this, see Schuh (2017), referencing Hoffman (1963) and Jungraithmayr (1970).

[28] This is supported by similar observations made by Schuh (1998) and especially Storch (2009).

represent EFFECT[29] (by highlighting the thing done to the participant) while ICPs represent AFFECT[30] (by highlighting the affectedness of the participant). The following examples show the different mental space structure of cognate object constructions and [+ ICP] constructions, respectively:

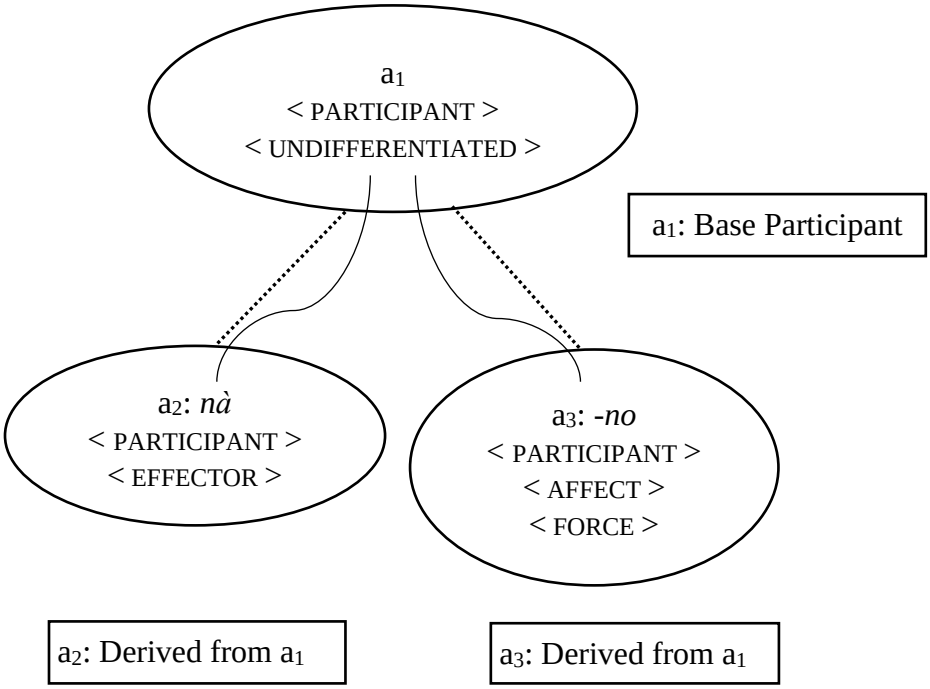
(27) *ku-Ø* *dáp* *dábe*
3SG-AOR hit hit
'S/he hit a hit.' [i.e., S/he gave a hit] (Hone, Benue-Congo; Storch 2009: 129)



[29] I.e., the action that was accomplished.

[30] I.e., the participant's response to that action.

(28) *nà* *pòrò-no*
1SG go_out.AUX1-ICP
'I went out.' (Kanakuru, West Chadic; Newman 1971: 190)



Note that in both examples, the base participant, undifferentiated as to force-dynamic roles, is mapped to a [+ A] participant representing the EFFECTOR. And both examples have a [– A] participant being used as a vehicle to profile post-state FORCE. The difference between the two is that in (27), this second participant isn't derived from the base participant (as with (28)), but rather from the conceptual entity ACTION. This means that although cognate objects work like ICPs – that is, they receive FORCE – only [+ ICP] constructions have a [+ A] and [– A] participant that are mapped to the same entity. This is important because it directly constrains how we understand the relationship between ICPs and cognate objects. While the Storch et al.

diagnostic correctly points out that the two phenomena share a cognitive mechanism, they are ultimately manifestations of distinct mental space structures, with different derivational chains.[31]

3.2 Explaining the purported Subject Point-of-View (SPOV) function

In the previous section, I showed that cognate objects and ICPs differ substantially, despite relying on a similar cognitive mechanism. I now examine the recent view that ICPs encode SPOV. This perspective has been advanced especially by Frajzyngier (see Frajzyngier & Shay 2012: 294; Frajzyngier 2012: 585; Frajzyngier 2011: 54; 57–58; see also Storch 2011: 90–93 and Ch. 6 of Frajzyngier, Johnston & Edwards 2005). SPOV is a type of subject focus, which I follow Van Hoek (2007: 900) in defining as use of the "subject" for the reference point or locus of empathy from whose perspective the verbal event is interpreted.[32] This "subject" is rarely defined; ostensibly, it refers to the syntactic subject. That said, I note that this "subject" need not be a controlling participant (Frajzyngier 2012; Frajzyngier & Shay 2012; see also the same perspective in Mous 2012), which opens the possibility that it could be either the [+ A] or [– A] participant that is in focus. I find it improbable that the ICP – itself a distinct syntactic participant – causes attention to be directed toward the syntactic subject, a different syntactic

[31] Consider also environment: cognate objects appear with "product" verbs like *cough* or *sneeze* (Amha 2009: 372–373; Levin 1993: 95; Dixon 2005: 330), but ICPs don't (Schuh 1998: 182; 2017: 283; Leger & Zoch 2011: 37–38). This may be because a sneeze, for example, is readily interpreted as a punctiliar event with an exceptionally close link between its existence and the verbal event that caused it. Furthermore, a sneeze seems to exist as a conceptual reality even apart from conjuring imagery of an associated causal chain. This would make a sneeze something more concrete than it being merely the reality marking the endpoint of a verbal action; this in contrast to a "hit" which completes the "hit" causal chain but which seems to lack such a strong sense of a discrete and concrete "thing" (i.e., a "hit" as a stand-alone reality) having been brought into sudden existence. This would mean that sneeze-type verbs have a relatively prominent candidate for EFFECT, which would potentially override using the relatively less-prominent AFFECT candidate.

[32] I argue that this process works via manipulation of focal attention; for reflections of this, see Schuh (2005: 21) and Grubic et al. (2010: 4).

participant, with which it has no clear, direct cognitive or attentional connection.[33] In any case, it seems unnecessary, as the subject-focus noted by Frajzyngier can be accounted for by my thesis: the "subject" whose perspective is encoded by the ICP is the unary base participant. This "subject", which is undifferentiated as to force dynamics, is mapped to the ICP via the Access Principle. The ICP serves as the focal element of the [+ ICP] construction and highlights by extension the base participant to which it is linked. This means that the ICP does, in fact, encode SPOV, but does so by exploiting the normal cognitive mechanism linking the ICP and the base participant, and not by shifting attention to the [+ A] participant as expressed in the syntactic subject.

3.3 Establishing the Disjuncture Navigation (DN) function

In the previous two sections, I brought the cognitive framework of [+ ICP] constructions to bear against two functions: first, a purported CO-function (which my thesis counters), and second, an SPOV-function, which my thesis explains from the perspective of cognition and attention. In this section, I argue that the cognitive framework I present in my thesis suggests that ICPs may have a role in navigating disruptions in the cognitive environment – what I call cognitive disjunctures (hence, the Disjuncture Navigation function). In support of this, I offer five conclusions about verbal event construal, derived from Croft (2012):

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[33] If anything, the O argument – and not the A argument (i.e., the [+ A] index) is the most obvious candidate for trajector, in that it tends (weakly) to receive focal attention. Additionally, I also see little theoretical support for thinking that explicitly profiling AFFECT would make the EFFECTOR more prominent (as would be the case if using the force-receiving ICP did, in fact, highlight the force-directive [+ A] index).

1) Construal isn't fixed, and any of a number of different construals can be chosen (Croft 2012: 14);
2) construal choice is, in part, motivated by the causal relationship between participants (Croft 2012: 27);
3) certain construals can perform functions extending well beyond argument encoding, such as the building of mental spaces and the tracking of referents (Croft 2012: 20);
4) construal choice is (weakly) constrained by the nature of the verbal event and (more strongly) constrained by the conventions of the language – i.e., whether or not certain construals are deemed licit, or are deemed a departure from the norm (Croft 2012: 29);
5) ultimately, construal choice is motivated by the various goals of the speaker, among them discourse goals (Croft 2012: 18; 29).

The key takeaway from these five conclusions is that speakers choose a construal in service of various goals, and within the context of various constraints.

In §3.3.1, I draw from these conclusions to argue that the various semantic effects associated with ICPs are the result of interpretive assessments of the choice to use [+ ICP] construals rather than an alternative. These assessments can hinge on either the presumed motivation for using ICPs or else the cognitive structure evinced by use of the ICP. In §3.3.2, I again draw from the five conclusions above – along with previously unpublished discourse data – to argue that ICPs are being used primarily to maintain participant activation across points of cognitive disjuncture. Since the argument in §3.3.1 and the argument in §3.3.2 have a prominent

element of the disruption of the cognitive environment, I argue that ICP use in both cases constitutes a means of navigating disjuncture.

Since there is so much cross-linguistic variation in ICPs, the assessments I make in §§3.3.1 and 3.3.2 should be understood as preliminary results, to be tested in-depth by future research. In particular, there is a need to analyze how ICPs produce semantic effects within the unique linguistic context of each [+ ICP] language (extending my work in §3.3.1), as well as to study the DN function against more extensive (and more varied) discourse data (extending my work in §3.3.2). Despite these limitations, my analysis in these sections helps demonstrate the real-world application of my thesis. First, it helps answer yet-unanswered questions, such as how ICPs can produce such a wide range of seemingly unrelated semantic effects. Second, it helps make predictions about other uses for the ICP that have not yet been explored in the literature, such as the use of ICPs in discourse.

3.3.1 The DN function and semantic effects

Interpretive assessments play a key role in determining how ICPs are understood. These assessments are built on recognizing the choice to use a [+ ICP] construal over alternatives (related to conclusion one above), and then processing that choice and assigning it an explanatory interpretation (related to conclusion five). Of particular note is that this applies even in cases where ICP use is deemed "obligatory" – i.e., in cases, where there seems to be no free choice that could result in an interpretive assessment. Though this may sound controversial, I find it fits not only the theoretical analysis I've built in this thesis, but also the literature itself. A cursory exploration of the literature produces no clear examples of obligatory ICP-use that also produces semantic effects (i.e., totality, mirativity, etc.). In a number of prominent cases where ICPs are associated with semantic effects, the ICPs themselves are explicitly deemed "optional"

(Newman 2003: 620) or "not… syntactically obligatory" (Schuh & Gimba 2001: 10). So there is reason to believe that semantic effects are only present in cases where there is some motivation (i.e., conclusion five) to choose a [+ ICP] construction over a valid alternative.

Furthermore, it isn't even evident that "obligatory use" is a legitimate category when disconnected from semantic effects. Early work on Pero (West Chadic, Nigeria) and Kanakuru (West Chadic, Nigeria) argued that ICPs are required with all verbs that are not inherently stative (Pero; Frajzyngier 1977: 76), or with all verbs used intransitively (Kanakuru; Frajzyngier 1977: 83). These same perspectives have been repeated multiple times, including as recently as Schuh (2017: 283). This sounds like obligatory use, but I question whether that's an accurate assessment: discussing Pero, Schuh notes that ICPs are obligatory not with all non-statives, but rather only with those non-statives being used with an inchoative sense. This means that ICPs: a) are not used in cases where expressing the semantic effect (i.e. inchoativeness) isn't desired; and b) are used in cases where expressing the semantic effect is desired.[34] With Kanakuru, the "obligatory use" covers only perfective verbs. Perfective verbs in particular seem to be easily compatible with ICPs, in that their use carries an inherent understanding of transferred FORCE, and thus completed action, as I've argued previously. Thus here also, ICPs are: a) obligatory in cases where the semantic effect of "completeness" or "fully in-effect" is desired; and b) excluded in cases where that semantic effect is not desired. Examples like this abound in the literature, and future research could fruitfully re-examine each such case of ostensible "obligatory use", reframing them as cases where the ICP is being used because of its ability to communicate a mental space structure that lends itself to a range of identifiable interpretive assessments.

[34] It is no coincidence here that both inchoativeness and middleness are often expressed with ICPs: Croft (1994: 102) argues that both encode the fact that the initiator of the verbal event is also the affected entity.

What these observations ultimately argue for is that ICPs are able to capture semantic effects because the choice to use the ICP communicates something about the mental space (and causal) structure of the verbal event (i.e., conclusions one and two above), which therefore drives an interpretive assessment (i.e., conclusions three and five) – likely even in cases where the ICP is deemed obligatory. The mental space structure communicated in this way constitutes a change in the cognitive environment: granularly, because it introduces a participant whose existence must then be interpreted; broadly, because it constitutes a motivated (or marked) construal choice. Using the ICP asserts an updated cognitive picture. It bridges the pre-assertion cognitive environment and the post-assertion cognitive environment. Thus, the ICP functions to: a) communicate a change in the cognitive environment; b) help build an updated cognitive environment; and c) help speaker and hearer navigate the disjuncture. The updated cognitive picture and the difference between it and the old picture are interpreted, which may (among other things) result in an assessment that certain semantic effects are present.

With this in mind, the remainder of this section examines a few common semantic effects associated with ICPs and explains how they can be arrived at as interpretive assessments of the DN function of ICPs. This serves two purposes. First, it helps to establish the validity of my proposed DN function. Second, it shows how my thesis contributes to making sense of the variation seen in ICPs and their associated semantic effects. Since – as I argue – the underlying cognitive process of update—signal—interpretation[35] is unchanging, understanding the semantic effects of ICPs no longer requires that the semantic effects be linked to one another (i.e., as

[35] This simplifies a process that actually looks more like: a) the cognitive picture is assessed by the speaker as in need of an update; b) this is signaled; c) the signal is received by the hearer; d) the interpretation is made; and e) the updated cognitive picture is activated (with the old picture rapidly decaying from working memory). The cognitive framework enabling this is essentially the same as the one enabling the DN function in discourse (see §3.3.2).

though to show that they are not simply random). Rather, all that is necessary is to show that each can be reasonably arrived at as the end result of the process. I do this briefly below, for a selection of semantic effects commonly associated with ICPs. A possible avenue of future research would be to cover the remaining semantic effects noted in the literature. This would not only result in a clearer picture of the relationship between cognition and semantic effects, it would also serve as part of the groundwork for an extensive comparative study of [+ ICP] languages looking for patterns in which semantic effects are produced and how they are distributed.

3.3.1.1 ICPs and totality

The "totality" function of ICPs is arguably the most straightforward case, so I begin here. Totality is an expression of the completeness, all-encompassing-ness, or thoroughness of an action. It expresses finality, definitiveness, and irreversibility (Schuh & Gimba 2001: 10), and is ultimately a declaration of the thorough, complete application of the verbal action (Newman 2000: 648). ICPs have been connected to totality at least as far back as Schuh (1972: 28). Explained simply, the ICP signals totality because it naturally suggests the complete self-involvement of the participant. This is a result of its encoding of the participant from two distinct perspectives, as both the [+ A] and the [– A] participant. Using the ICP to highlight the force-receiving nature of the participant stresses the action as being applied to or against a participant, and thus highlights (by extension) the fact that the action is understood as a *fait accompli*.

3.3.1.2 ICPs and mirativity

A similar case may be made for instances where the ICP is used to express mirativity. Mirativity, following Aikhenvald (2004: 20), is concerned with "unexpected information", and

includes expressions with "overtones of surprise." Mirativity has been associated with various ICP and ICP-like constructions by Storch (2009: 134; 2011: 96–98), Hellwig (2011: 74–77), and Koops (2011: 107; 110–112), among others. The simplest explanation of why the ICP can express mirativity is that it likely disrupts what the interlocutors expect about the relationship between the participant and the verbal event being profiled. In other words, if it is assumed that a simple verbal action done by the participant will involve only that participant in a [+ A] capacity, then the inclusion of the same participant in a [– A] capacity will be interpreted as unexpected. Storch (2011: 97) gives an interesting example of "mirativity forms" – namely, ICPs – used to describe the effects of spirit possession in Northern Jukun (Benue-Congo, Nigeria). Actions undertaken by a possessed individual are expressed as involving that individual both as a [+ A] and a [– A] participant. In such cases, it is ostensibly deemed surprising or unexpected that the possessed individual should "do" something while also being carried along in the "doing" as a non-volitional participant, acted upon (and thus compelled) by the possessing spirit.

3.3.1.3 ICPs and inchoativeness

Inchoativeness, which is related to the incipience of a verbal event, seems harder to explain. It has been connected to ICPs by Frajzyngier (1977: 80–82), among others,[36] though there is no immediately apparent link between the ICP and the effect. This stands in marked contrast to the relatively straightforward ICP/totality link. Totality strongly implies that the verbal action is understood as fully taking effect. This is because the existence of the [– A] participant implies

[36] Inchoative semantics have also been connected to middles (Arce-Arenales, Axelrod & Fox 1994: 17–18; Croft 1994: 102). This is noteworthy in light of the close connection between the mental space structure of [+ ICP] constructions and the mental space structure of middle verbal events.

the transfer of FORCE to its post-state location, meaning there is an implicit (notional) temporal shift from "before the action occurs" to "after the action occurs". Thus, the action can be understood on a conceptual level to be "complete", even when it's not expressed as such aspectually (e.g., by use of perfective aspect). Mirativity can be understood on much the same grounds; an action interpreted as surprising or unexpected is still applied to or against the [– A] participant, which would, as with totality, imply its conceptual completion. Nevertheless, the ICP is still used to express inchoativeness in various languages, which is prima facie evidence of its licitness. A potential explanation for the relationship between the ICP and inchoative semantics is that the ICP introduces an explicit participant into the cognitive environment, causing the verbal event associated with that participant to be interpreted as cognitively new. Having a cognitively new event suddenly manifest itself could be highlighting the shift from the verbal event's non-existence to its resultant existence, which would thus be interpreted as its incipience. This would relate inchoativeness to punctual semantics, in that both are connected to the verb analyzed with regard to a single, fixed point in time.[37]

3.3.2 The DN function and discourse

In §3.3.1, I argued that the semantic effects produced by ICPs can be explained by two factors: 1) the interpretive assessment of marked choice to use ICPs over alternative construals; and 2) the interpretive assessment of the mental space structure expressed by use of the ICP. The ICP is associated with cognitive disjuncture, and its use to navigate these disjunctures may result in any of a variety of interpretive assessments, chief among which are a range of seemingly unrelated semantic effects. Despite being seemingly random, these semantic effects are – as I argued –

[37] This is supported by Leger and Zoch on Frajzyngier, who note the latter's connection of punctuality with both inchoative semantics and posture change (Leger & Zoch 2011: 36).

produced as a result of the ICP's DN function. In this section, I argue that the cognitive structure of [+ ICP] constructions may allow ICPs to be used as aids to discourse navigation. To do this, I explore the relationship between attentional focus, Working Memory, and cognitive disjuncture. I then examine discourse data from Ishɛ (Benue-Congo, Nigeria) and show how ICP use seems to be concentrated around changes in the referent that is receiving attentional focus. This means that the ICP is another option in a range of referent-expression choices, one that plays an important role in helping to navigate changes in the cognitive environment shared by interlocutors.

I have explained in previous sections that cognitive disjunctures are points of change in the cognitive environment. This may constitute a change in how the participant and their role is to be interpreted (as with semantic effects); it may constitute a change in the context in which participants exist or in which actions are undertaken. In all such cases, however, the cognitive disjuncture is effectively making changes to the contents of Working Memory (WM). Working Memory is a "small and quickly updated storage of information" (Kibrik 1999: 30) that plays an important role in guiding decisions on referential choice (Kibrik 2000: 73). Referents are added to WM via attentional focus and – unless they are reactivated – eventually pass out of WM via decay (Kibrik 1999: 49). Working Memory is essentially a running clock; when an entity receives attentional focus, it is entered (or entered anew) into WM, where it immediately begins to decay and eventually pass out of WM, unless it is reasserted in WM. Elements that are receiving focal attention are said to be active; those that are not receiving attentional focus (but which are still present in WM) are said to be semi-active (Chafe 1987: 22).[38] When focal

[38] Chafe (1987: 22) calls this state of semi-activation "accessible". I offer an alternative: all information in WM is accessible. The closer something is temporally to having been activated (i.e., to having received attentional focus), the more accessible it is; the further it is from having been activated (and thus, the closer it is to complete decay and

attention is directed toward a given element, it is activated and becomes highly accessible. Since only one element can receive focal attention, all other elements in WM are necessarily in semi-activation. These elements continue their progress toward decay, with those closest to the complete decay (i.e., those that are only marginally accessible) passing out of WM first, followed by those that are relatively higher in accessibility. In a typical example of cognitive disjuncture in discourse, attentional focus is redirected from one element to another; thus, the activation of the attention-losing element is preempted by the activation of the attention-gaining element. The attention-losing element is still present in WM, but its accessibility begins to decrease, leading to marginal accessibility and eventual decay from WM.

Cognitive disjuncture in discourse takes many forms. Some of these are part of the discourse's global structure – the large-scale chunks into which discourse is segmented (Kibrik 2011: 14). An example of this type of cognitive disjuncture is the thematic unit boundary, which signals the line separating one thematically connected group from another (Dooley & Levinsohn 2001: 18; §7). Others are more closely connected to the discourse's local structure – i.e., small-scale chunks, such as clusters of prosodically linked clauses (sometimes called Elementary Discourse Units (EDUs)) (Kibrik 2011: 14). An example of this latter type of cognitive disjuncture is the Subject Context change. Subject Context (SC) changes are those points in the discourse where the participant receiving focal attention changes. This is typically understood to occur between clauses. The four possible SCs are: *S1*, for subjects that are identical to that of the previous clause or sentence; *S2*, for subjects that were the addressee of speech reported in the previous sentence (in a closed conversation); *S3*, for subjects involved in the previous sentence

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removal from WM), the less accessible it is. Thus, in addition to the activated/semi-activated distinction, we have two poles for sorting the elements of WM: "highly accessible" and "marginally accessible".

in a non-subject role (other than in a closed conversation); and *S4*, for subject changes other than those covered by S2-S3 (Dooley & Levinsohn 2001: 65).

Discourse-level cognitive disjuncture is often navigated through the use of extra encoding material. Participant reference strategies range from zero anaphora (i.e., no explicit reference) – low encoding – to a full NP – high encoding (Givón 1983: 18).[39] Thematic unit boundaries are often marked with relatively high levels of encoding – things like full NPs (Dooley & Levinsohn 2001: 20; see also Dooley and Levinsohn 2001: §§16-18). This is supported by the observation that navigating changes in the cognitive environment requires increased cognitive processing (Dooley & Levinsohn 2001: 57). It is unclear whether the extra encoding material is the cause of the increased processing, or whether it simply accompanies it. Given that cognition drives language – and indeed all human experience – so strongly, I suspect that the use of extra encoding material may actually induce cognitive disjuncture, or at least prepare the way for it. Testing this is outside the scope of this thesis. In any case, whether we assume that extra encoding of participants is done in order to effect cognitive disjuncture or as a result of it, it seems clear that the two are closely connected. In the case of thematic unit boundaries, using extra encoding (i.e., a full NP) activates that referent in WM. This changes the cognitive environment by allowing the previously active referent to be deactivated, at which point it moves through successively lower stages of accessibility,[40] before ultimately decaying completely and disappearing from WM. Although the thematic unit boundary itself constitutes a cognitive disjuncture, the referential change does as well. This referential change might potentially be

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[39] Free Person Forms (FPFs – i.e., non-bound pronouns) fall somewhere in the middle.

[40] In reality, a continuum of accessibility without discrete points.

additive, simply supporting another manifestation of the cognitive disjuncture associated with the thematic unit, or it might be independent, and thus the only manifestation of that cognitive disjuncture. I make no claim either way. The referential change constitutes a local-structure manifestation of cognitive disjuncture that supports the existence of a global-structure disjuncture (i.e., the thematic unit boundary). This is true even if it's the only local-structure manifestation being expressed. Understanding this is important, because it helps to establish the idea that a relatively higher level of encoding material constitutes a cognitive disjuncture in its own right. Again, it is not particularly important at this point to determine which came first (i.e., the cognitive disjuncture or the encoding of it); what matters is seeing that use of extra encoding material updates the contents of WM, which is self-evidently a change in the cognitive environment.

Using extra encoding material in participant reference is, as I have just argued, a type of local-structure cognitive disjuncture. This is evident not only because of how we understand the workings of WM, but also because of the well-attested connection between extra encoding and thematic unit boundaries. I argue that ICPs may also be considered a type of extra encoding material. The rules on ICP use vary significantly between [+ ICP] languages. With that said, data across the literature supports the idea that using the ICP is not the default level of encoding material (except, depending on the language, in certain verbal TAMs, in negation, etc.). Based on the data I have available, the default level of encoding in Ishɛ is the [+ A] index. So when the ICP is used in Ishɛ, it constitutes use of extra encoding material.

I believe that at least some use of the ICP may be explained by understanding it as extra encoding material being used to help navigate cognitive disjuncture.[41] Specifically, I see evidence supporting the idea that ICPs are being used near SC changes. While SC changes themselves are frequently marked by even higher amounts of encoding material (especially full NPs), ICP use seems to cluster near SC changes, as I show below. This suggests to me that the ICP, while not constituting enough extra encoding material to be interpreted as an SC change itself, nevertheless constitutes an increase in encoding material over the default. This would serve to reassert the linked participant in WM, allowing it to be made (temporarily) more accessible. The nearby SC change would assert a different referent, thereby deactivating the participant expressed with the ICP. Nevertheless, this newly deactivated referent would still be relatively highly accessible. Since even activated referents still continue their progress toward decay, a participant that is preempted in WM by a new referent (as would happen at an SC change) would already have become less accessible over time. By reasserting that participant mildly through the use of the ICP, that participant is given a boost in its accessibility that helps it to stay present and relatively highly accessible in WM despite an intervening referent being activated at the SC change.

On a mechanical level, the ICP is able to do this because of the way it affects focus. The ICP directs attentional focus to the base participant via the Access Principle (in particular, uplink). Directing attentional focus to the base participant activates it and resets its decay timer

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[41] "Navigating" and "inducing" cognitive disjuncture are essentially matters of perspective. I suspect that the speaker encodes disjuncture through the ICP, along with other means. These same signals of disjuncture are received by the hearer and are then compiled and interpreted as signaling disjuncture on the part of the speaker, at which point they actually induce disruption of the hearer's cognitive environment in order to coordinate their shared cognitive environment. I have no space to explore this further; in any case, what matters is that the ICP is being used to aid in this process of navigating what it means to have a signaled change in the cognitive environment.

to zero. It makes no difference what the nature of the base participant's relationship with WM has been before this point. It may have already been present in WM; it may have decayed out of WM; it may have never been in WM at all. As soon as it is asserted as existing in WM (i.e., by having attentional focus directed toward it) it is handled as a new cognitive reality, becoming activated and having its decay timer set to zero. In cases where a referent does already exist in WM, using the ICP to manipulate attention and reassert the referent in WM is a valid means of staving off decay. This keeps elements both present in WM and also highly accessible, which may be desirable for any of a number of reasons. This may be of particular importance when another referent is being introduced; since asserting a different referent in WM would cause the base participant to become less accessible, it may be desirable to reactivate the base participant in order to maintain its relatively high level of accessibility, even if it's not otherwise close to complete decay.[42]

Some reflection of this may be visible in data from Ishɛ, which I provide in full in the appendix. Although the discourse sample I use is relatively small, the distribution of ICPs in it is consistent with the theoretical position I have built. Below, I present a table that tracks how ICPs pattern relative to SC changes. I also note the distribution of free person forms (FPFs) – i.e., standalone pronouns – and full NPs, as these are referential strategies that use a relatively high amount of encoding material.[43] While it is possible that some of the ICP use shown in the

[42] This might be related to the idea of privileged referents, in which case keeping a participant highly accessible through the use of an ICP could be a type of local-VIP strategy. More data would help make this clear.

[43] I break slightly from precedent (see especially Haspelmath 2013) by separating full NPs from FPFs. Though both full NPs and free-standing pronouns are free (i.e., not attached to another syntactic entity) full NPs constitute self-defining participant references and as such – unlike free-standing pronouns – don't require the presence of a referent in WM to give them definition. Because of the role WM plays in guiding use of various person forms, I find it appropriate to treat full NPs and free-standing pronouns separately.

table could be due to the desire to capture semantic effects, I have no evidence to that effect in any of the glosses, translations, or additional comments provided to me; in any case, it's unlikely that all of them would be explained by semantic effects. At least some (if not all) of the variation in ICP use in this data suggests some other motive. I believe the best explanation for this variation lies in assuming that the ICP is being used to maintain the referent's presence and high accessibility in WM. I discuss specific examples below. First, the data, with SC changes highlighted in bold:

Table 2 Activation strategies (ICPs vs FPFs) and their associated SCs[a]

Clause	SC	ICP	FPF	Full NP	Clause	SC	ICP	FPF	Full NP
1	-				10e	S1			
2a	-				10f	S1			
2b	-				10g	S1			
3a	**S4**			**X**	**11**	**(S3)**		**X**	
3b	S1				12	S1	X		
4a	S1		X		13	S1			
4b	S1				14	S1			
4c	S1	X			**15**	**S4**			**X**
5a	S1		X		16a	S1	X		
5a	S1				16b	S1	X		
5a	S1				17	S1		X	
5b	**S3**			**X**	17	=			
6	**S4**				18	S1			
6	=				**19**	**S4**			**X**
7	S1	X			**20**	**S4**	**X**		**X**
8	S1		X		**21a**	**S4**			**X**
8	=[b]				21b	S3			X
8	=				**22**	**(S4)**			**X**
8	**S4**				23a	S1		X	
8	S1				23b	-		(X)	
9a	**S4**			**X**	**24**	**S4**		**X**	**X**
9b	S1				25	S1			
10a	**S4**			**X**	25	S1			
10b	S1		X		26	S1			
10b	=				27	S1			
10b	=				**28a**	**S4**			
(10c)	**-**				28b	S1			
10d	**S4**			**X**	(28c)	-			
10e	**S4**				**28d**	**S4**		**X**	

[a] Entries with surrounding parentheses denote tentative assessments.
[b] '=' denotes separate verbs in a shared SC environment that form a distinct, prosodically linked set.

Table 2 ***(Cont.)*** Activation strategies (ICPs vs FPFs) and their associated SCs

Clause	SC	ICP	FPF	Full NP	Clause	SC	ICP	FPF	Full NP
29a	**S4**				51	S1	X		
29b	**S4**				**52a**	**S4**			
29c	**S4**				52b	S1			(X)
29c	S1				**53**	**S4**			
29d	-				**54**	**S4**			
29e	**S4**		**X**		54	S1			
30	**S4**		**X**		55a	S1			
31	**S4**			**X**	**55b**	**S3**		**X**	
32	**S4**				**56a**	**(S4)**			
33a	**S4**				56b	S1			
33b	S1			(X)[c]	56c	S1			
34	**S4**			**X**	**57**	**S4**			**X**
35	**S4**			**X**	**58a**	**S4**			
36	**S4**			**X**	**58b**	**S4**			**X**
37	**S4**			**X**	58c	S1			
38	**S4**		**X**	**X**	**59a**	**S4**			**X**
(39a)	-				**(59b)**	**(S4)**			
39b	**(S3)**		**X**		59c	S1		X	
40a	S1		X		**60a**	**S4**		**X**	
40b	S1		X		60b	S1			
40b	=				61a	(S1)			
41a	**S4**			**X**	61b	(S1)			
41b	S1		X		**61c**	**S4**			**X**
42a	S1		X		61c	=			
42b	S1				**62a**	**S4**		**X**	
42c	**S4**				62b	S1			
42d	**S4**				62c	S1			
42d	S1				62d	S1	X		
43a	**S4**		**X**		(62e)	-			
43a	=				62f	S1		X	
43b	**S3**				63a	S1			
44	**S4**				63b	S1			
44	=				63c	S1			
45	S1				63d	S1			
45	=				63e	S1			
46a	**S4**				63f	S1			
46b	**S4**				63g	S1	X		
(46c)	-				**64**	**S4**	**X**		
(46d)	-				65	S1			
46e	**(S4)**		**X**		65	=			
47a	**S4**				**66**	**S4**	**X**		
47a	=				67a	S1			
47b	**S4**			**X**	**67b**	**S4**			**X**
48	**S4**	**X**	**X**		**68**	**S4**			**(X)**
49a	**S4**				**69a**	**S4**	**X**		
49b	S1				69b	S1	X		
49c	S1				**70**	**S4**			**X**
50a	**S4**				70	=			
50b	**S4**				**71a**	**S4**			
50c	**S4**			**X**	71b	S3			

[c] An alternative interpretation would have all of 33a as the NP for 33b.

Table 2 ***(Cont.)*** Activation strategies (ICPs vs FPFs) and their associated SCs

Clause	SC	ICP	FPF	Full NP	Clause	SC	ICP	FPF	Full NP
71c	S1	(X)			74c	S1			
72a	**S4**			**X**	75a	S1			
72b	(S1)				75b	S1		X	
72c	(S4)			X	**75c**	**S4**			**X**
(72d)	**S4**				**76a**	**S4**			**X**
73	S1			X	(76b)	-			
74a	S1				77	(S1)			
74b	**S4**			**(X)**	**78**	**(S4)**			
74c	**S4**								

In general, ICPs tend to occur *near* SC changes, with full NPs occurring *at* SC changes. FPFs (which may lie between ICPs and full NPs in terms of encoding material) are difficult to pattern, but they may be slightly more likely to occur near SC changes than at SC changes. Some FPF use may be conditioned by the particular verbs used in discourse, or else speaker judgements as to the accessibility of a referent – the idea being that referents that are particularly low in accessibility may require an FPF over an ICP. Exploring this would require more data, which falls outside the scope of this thesis.

The dataset I reference above is likely too small to count as definitive evidence. Nevertheless, it provides compelling initial support for the theoretical arguments I have developed to this point. Note in particular the examples below, representing clauses [63a] through [65]:

(29) *a-kama* *a-wur-shi* *i-shɔuhɔ*
3PL-continue CL-come_out-PL.NOMR1 CL-likeness [63a]

(30) *a-kama* *a-wur-shi* *i-shɔuhɔ*
3PL-continue CL-come_out-PL.NOMR1 CL-likeness [63b]

(31) *a-nyiŋ*
3PL-
be_one [63c]

(32) *a-nyiŋ*
3PL-
be_one [63d]

(33) *har* *a-ba*
3PL-
until come [63e]

(34) *a-wur-sha*
3PL-come_out-
X [63f]

(35) *a-maa-bɔɔ*
3PL-finish-3PL.ICP [63g]
'They kept coming out like that; they kept coming out like that one by one till they were all finished coming out.'

(36) *a-koi* *ha-no* *o-cu* *ha* *a-mɛɛk-kɔ* *e-nyaŋ*
CL-forest DEM-DIST CL-time DEM 3SG-turn-3SG.ICP CL-ruin [64]
'That forest [i.e., where they lived] has now turned to ruins.'

(37) *a-mɛɛk* *a-sho* *e-nɛŋ* *e* *i-ram*
3SG-turn 3SG-be CL-place AM CL-farming [65]
'It turned into a place of farming.'

Examples (29) through (34) have the same SC, and are not marked by increased encoding material (i.e., they have no ICP, FPF, or Full NPs). This is particularly interesting, since the verb in (31) is used with an ICP elsewhere – notably in clause [62d]:[44]

[44] The verb in (34) doesn't appear with an ICP in the Ishɛ data. However, it fits the Motional class of middle verbs, and likely could be expressed with an ICP, much like the verb *cikpi* ('come_down'), which has an ICP in [16a].

(38) *a-ba-bɔɔ* *ni* *o-ku-ŋwe* [62d]

3PL-come-3PL.ICP LOC CL-edge-DEF

Example (35) does have an ICP,[45] and it is immediately followed by an SC change in (36) (which also has an ICP). Example (37) keeps the same SC as (36), and is expressed without an ICP, even though the verb is the same. This seems consistent with what we might expect if we assume that the ICP is being used to keep participants present and highly accessible in WM. When there is a pending SC change and the previously activated participant is proceeding toward preemption, the ICP is used to briefly reactivate it, thereby keeping it present and highly accessible in WM across the intervening activation of a different referent.

This connection between ICP use and cognitive disjunctures is supported not just by the SC change, but by how the lines are delivered: (33) through (35) form a group of prosodically linked clauses, offset from surrounding groups by distinct caesura.[46] This constitutes a distinct local structure. Examples (33) and (34), which have verbs that could be expressed with ICPs, are in the middle of a group of cognitively related clauses, and are therefore less likely to be expressed with ICPs (assuming the DN function being explored in this section). Example (35) does have an ICP, but it is situated at the local-structure boundary, offset from the next group by caesura (and possibly intonational contour). These offset-establishing features are associated

[45] This is the only time this verb is used in the discourse data. However, since ICPs are optional in Ishɛ, I believe its use in clause [63g] is likely to be conditioned by its proximity to the SC change in [64]. ICP use here may also be reinforced by the fact that "finish" suggests fully applied action (i.e., totality).

[46] Example (35) is delivered with a slight lowering of terminal pitch. This produces a "continuation" intonational contour – common throughout the discourse – that may signal the persistence of a larger cohesive group across points of cognitive disjuncture. Analyzing all the language's intonational contours is outside the scope of this thesis.

with extra cognitive processing (Swerts & Geluykens 1994: 34–35), which is a hallmark of cognitive disjuncture. The absence of ICPs within a prosodic group and the presence of ICPs at the boundaries of prosodic groups, immediately before SC changes, suggests that ICP use is motivated – in at least some cases – by the need to maintain the referent's presence and relatively high accessibility in WM across the activation of another referent.

Another possible example of the ICP being used to navigate cognitive disjuncture in discourse comes in clauses [68] through [70]:

(39) *a-nya-he* *u-neke* *a-kau-pi* *e* *i-ram*
3PL-refuse-APL CL-person CL-farming-NOMR1 AM CL-farm [68]
'They refuse to let anyone farm there;'

(40) *ko* *agɛ* *e* *i-nak* *hã* *k-a-yari-bɔɔ* *i-nak*
even CL.PL:X AM CL.PL-cow NEG HAB-3PL-graze:X-3PL.ICP CL.PL-cow [69a]

(41) *a-jẽẽ-bɔɔ* *hum* *ba*
3PL-go-3PL.ICP there NEG [69b]
'even the Fulani don't graze their cattle there.'

(42) *domin* *a-bin* *a* *a-tɛtɛ* *sh-a-kõ* *nik* *incɛŋ*
because CL.PL-thing AM CL.PL-elder BM-3PL-be_old up_to now

a-na *a-sho* *ni* *hum*
3PL-continue CL-be LOC there [70]
'(This is) because the ancient things of the elders are still there.'

In these examples, cognitive disjuncture exists between (39) and (40) – i.e., clauses [68] and [69a]. This is evident not only in the SC change between the two clauses, but also in the caesural

offset between the two.[47] This cognitive disjuncture is navigated with help of the ICP. The ICP is also present in (41), which immediately precedes another SC change in (42). Here again, the existence of a cognitive disjuncture between (41) and (42) is evinced by the SC change and by distinct caesura that offsets the one clause from the other.[48] Examples (40) and (41) are both part of the same local structure, and both have the same SC. Although it is possible that the ICP in (41) is influenced by the ICP in (40) (given that the two form a single sentence), it is arguably more likely that the ICP in (41) is influenced by the SC change immediately following it, in (42). Partial support for this may potentially be found in clauses [63f] and [63g], which constitute another [– ICP] / [+ ICP] clause pair within a single sentence:[49]

(43) a. *a-wur-sha*
3PL-come_out-
X [63f]

b. *a-maa-bɔɔ*
3PL-finish-
3PL.ICP [63g]
‘(They kept coming out like that; they kept coming out like that one by one till) they were all finished coming out.’

[47] Also present: another possible example of “continuation contour”.

[48] I believe (40) may also exhibit contour signaling cognitive disjuncture – though not the same contour as in (39).

[49] Alternatively, it may be that the ICPs in (40) and (41) express mirativity, while the ICP in (43b) (i.e., [63g]) may express totality (as suggested by “finish”). With that said, totality in [63g] would not explain [+ ICP] “turn” in [64]. ICP use with “turn” is optional, and “turn” is actually [– ICP] in [65]. This suggests that use of the ICP in [63g] and [64] is due to the SC change (and also that lack of the ICP in [65] is due to the lack of SC change). This favors interpreting the ICP in (40) and (41) as also motivated by SC change, even if there is also a mirative reading.

In any case, there is a definite cognitive disjuncture following (41), evident in the SC change at (42). This change is expressed using a full NP, which is consistent with the general pattern in the data.

In this data, FPFs and ICPs may arguably be in free variation. Consider what happens when FPFs and ICPs occur in close proximity: examples (44a) and the first part of (44b) use the same verb ('go') – a verb known to be expressed with ICPs – but in this case, (44a) has an ICP and (44b) has an FPF. The same is true in (45a) and (45b), as well as in [16b] (prosodically linked with [16a]) and [17].

(44) a. *a-jẽẽ-bɔɔ* *i-lau-kpe* *e* *imbɔɔ* *u-dẽ* *in-kojok*
3PL-go-3PL.ICP CL-hunting-DEF AM 3PL.PRO CL-side CL-Nkojo
'They went to their hunting on the Nkojo side.' [7]

b. *imbɔɔ* *k-a-jẽẽ* *a-jẽẽ* *a-dur* *i-jok* *i-rɛ*
3PL.PRO HAB-3PL-go 3PL-go 3PL-catch CL-guinea_fowl 3PL-be_many
'They typically went out and caught many (guinea fowl here in the forest of Nkojo).' [8]

(45) a. *a-jẽẽ-bɔɔ* *i-lau* *u-dẽ* *o* *o-bẽ* *a* *a-shɛ*
3PL-go-3PL.ICP CL-hunting CL-side AM CL-land AM CL-Ashɛ
'(They were hunters, and they came from Kagoro and) went hunting on Ashe lands.' [4c]

b. *imbɔɔ* *bik* *a-jẽẽ* *k-a-jẽẽ* *a-tũ-ã* *ni* *i-gõõ*
3PL.PRO COND 3PL-go HAB-3PL-go 3PL-stay-X LOC CL-hill

na *a-jei*
AM CL-Ajei
'(When they went, they usually stayed a short time at the Hill of Ajei;) that's the one that is in Katugal.' [5a]

(46) a. *a-cikpi-i* *ni* *i-gõõ-i*
3SG-come_down-3SG.ICP LOC CL-hill-DEF [16a]

b. *a-jẽẽ-i* *u-dẽ* *a* *a-tõr*
3SG-go-3SG.ICP CL-side AM CL-Katugal
'He came down the hill and he went to the Katugal side.' [16b]

c. *iye* *g-a-jẽẽ* *a-dok* *e-nɛŋ* *ni* *o-shĩ-ĩ*[50]
3SG.PRO X-3SG-go 3SG-found CL-place LOC CL-underneath-DEF

e *i-gõõ-i*
AM CL-hill-DEF
'He went again and found a place below the hill.' [17]

Assume for the moment that for each of these clause pairs there is a) strong motivation to assert the referent in WM, and b) strong motivation to not express subsequent (identical) verbs with the same SC using an ICP in both places. This would explain why the first instance uses the ICP and the second uses the FPF: they both assert the referent in WM, but they are different enough in form that they can be used to avoid repetition. With that said, prosodic evidence suggests there may be a local structure boundary between all these clauses. This would argue against free variation, and would suggest rather that the ICP is still being used to navigate a change to the contents of WM (as with S2-S4 type SC changes), only in this case, the newly activated referent in the subsequent clause is actually the same referent as in the [+ ICP] clause. This newly asserted referent is expressed using the FPF. It is worth noting that the final clause in each of the examples above includes non-Main Event lines; this is evident from use of the HAB marker. This

[50] This seems to be a different word in the audio. I have maintained it as it was given in the original transcription.

would potentially mean that the FPF is the preferred choice for reasserting already-activated referents in events that fall outside the Main Event line, with ICPs preferred elsewhere. I suspect that using the FPF in these cases may ultimately be due to the fact that FPFs reassert referents in WM more strongly than ICPs, but less strongly than full NPs. In any case, since the ICP is acting the same in S2-S4 cases (where it is typically followed by a full NP) as in these particular S1 cases (where it is followed by an FPF), this might also indicate that the true measure of an SC change is not simply whether the participant is different, but whether it is treated as different: i.e., by being given expression with a different (and higher) amount of encoding material than would otherwise be expected. More data would likely clarify this relationship.[51]

4. Conclusion

My intent in this thesis has been to show that ICPs – with all their various manifestations, environments, and constraints – are unified by a relatively simple cognitive structure. This structure is best understood in terms either taken directly from or else influenced by cognitive linguistics. It is ultimately this structure that accounts for the language-to-language variations we see in the ICP. In order to demonstrate this, I first argued that ICPs are a force-receiving mental instantiation of single "real" entity, which I defined as the base participant. This force-receiving participant (i.e., [– A]) is distinct from the force-exerting (i.e., [+ A]) participant, though both are directly linked to the same base participant. I showed how middle verbs (as defined) lend themselves particularly easily to expression with both a [– A] and a [+ A] participant. While acknowledging that ICPs often occur with middle verbs, I nevertheless demonstrated on theoretical grounds that the ICP is licensed with "non-middle" verbs. This was

[51] A good starting point for future research analyzing the DN function could be the tone-marked discourse found in Marggrander (2018), which comes from Dũya (Benue-Congo, Nigeria), a language closely related to Ishɛ.

supported by a number of potential examples from the literature, though further research needs to be done to validate these.

Starting from this theoretical perspective, I then analyzed various functions of the ICP. Some of these were taken from the literature; others were new (or at least newly categorized) functions of my own making. I leveraged my thesis' mental space structure to show how ICPs are distinct from cognate objects. I then used this same structure to further validate the relationship between ICPs and Subject Point-of-View (SPOV). This is particularly important because although the SPOV function has proven popular in recent works, it hasn't yet been given a particularly thorough treatment in the literature. My hope is that the theoretical foundation I have built in my thesis will open the door to further research in this direction. Finally, I explored the various ways the ICP is used to help navigate cognitive disjunctures. Although other researchers have seen many of these same functions, it seems there hasn't been a significant effort to this point to determine whether or how those functions are related. As I have shown in this thesis, I believe these various functions, different as they seem, are all outworkings of the same cognitive structure that helps explain ICPs more generally.

As I see it, my thesis is a significant departure from the historical trend. If the main question of ICP research to this point has been "what are ICPs?" or "what do ICPs do?", then my question here has been "how do ICPs work?". This entails, to some extent, also answering the "what" questions. I believe ICPs are a force-receiving participant index, a [– A] mental instantiation of the base participant, to which the "subject index" (i.e., the [+ A] index) is also linked. I believe ICPs help encode SPOV (as I've defined it here). I also believe that ICPs allow speakers to manipulate how they understand a participant's relationship to the verbal action that same participant has performed. And since this understanding is ultimately received by the

hearer, I believe the ICP is a type of "out of band signaling"[52] that interacts with the interlocutors' shared cognitive environment, even as its various manifestations are shaped by other cognitive and linguistic information. Though further research is required to completely answer the "what" questions, it should be clear by now that these cannot be answered apart from addressing the "how" of ICPs. I believe my thesis stands as a useful push in this direction. With further research built on more complete data – especially natural discourse data – I believe it will be possible to move the discussion of ICPs forward significantly, and to provide theory-grounded, testable answers to help make sense of ICPs used in unexpected places and ways.

[52] I.e., an exchange of information about a message sent and received separately from the message itself. In RF communications, this occurs on a different channel; in cognitive linguistics, this occurs on a distinct cognitive pathway.

Abbreviations

02	Class 02	FUT	Future
03	Class 03	HAB	Habitual
06A	Class 06a	ICP	Intransitive Copy Pronoun
1	First person	INF	Infinitive
2	Second person	INT	Interrogative particle
3	Third person	INTS	Intensifier
ACC	Accusative	LOC	Locative
ADD	Additive	M	Masculine
AM	Associative Marker	NDEF	Indefinite
AOR	Aorist	NEG	Negative
APL	Applicative	NOMR	Nominalizer
ASC	Associative	NOMR1(/2)	Nominalizer 1 (or 2)
AUX	Auxiliary	PERF	Perfect
AUX1	Auxiliary 1	PL	Plural
BM	Boundary Marker	POSS	Possessive
CL	Classifier	PRF	Perfect
CLM	Class marker[53]	PRO	Pronoun
COM	Comitative	PROX	Proximal
COND	Conditional	PURP	Purposive
COP	Copula	QM	Quotative Marker
DEF	Definite	REFL	Reflexive
DEM	Demonstrative	REL	Relative marker
DIST	Distal	SBJV	Subjunctive
DM	Discourse marker	SC	Subject Concord
F	Feminine	SG	Singular
FOC	Focus	X	Unknown

[53] Tentative assessment; CLM also appears as CLM.ADD and CLM.PURP. An alternative is "Clause Marker".

Appendix

The following table represents my best assessment of the clause breaks in the Ishɛ discourse data. This data consists of approximately six minutes of discourse (comprising a total of 78 lines) recorded by Mr. Arams Zachariah of SIL Nigeria on 11 June, 2018. It has been shared under a Creative Commons Attribution-ShareAlike 4.0 license. The data was originally transcribed by one or more of David Rowbory, Moses Sabo, and Kathleen Spence. With the exception of a few relatively minor emendations (and a fairly extensive restructuring of the data's clausal structure), I have kept the gloss as close as I could to the original that was provided to me. It also means that the data does not indicate tone, as it was provided to me without tone marking. Ishɛ is a tonal language and it is possible that information pertinent to understanding ICPs could be carried by tone. Analyzing the data for tone is beyond the scope of this thesis; with that said, there seems to be significant patterns of sentence- or clause-level intonational contour that factor into my analysis of the DN function of ICPs (see §3.3.2). Furthermore, as the original analysis was a work-in-progress, there are some irregularities in the gloss consistent with the ongoing process of morphosyntactic evaluation. Throughout this table, an "X" represents a morphosyntactic element of unknown function; this represents either the assessment of the original glossing team or my own assessment, based on questions I have concerning the text. In light of my analysis of ICPs, and in light of the theoretical framework I use throughout this thesis, I have some thoughts on the function of the several "X" morphosyntactic elements. With that said, a full analysis of the grammar of Ishɛ lies beyond the scope of this work. Though the focus of this appendix is on clauses, the included free translations are indexed to whole lines, and are provided either after individual clauses or after the last clause in a lettered sub-group.

(1) *u-tarihi* *o* *u-kojok* *mi* *nɛ* *u-sho* *i- shɔu* *ha-ne*
CL-history AM CL-Nkojo DEM.PROX here 3SG-be CL- likeness DEM-PROX
'The history of Nkojo here is like this:'

(2a) *ɛti*
QM

(2b) *ki* *sh-e* *esha*
INTS BM-3SG X:be_long_ago
'It was long, long ago.'

(3a) *e-ner* *e* *i-hwɛi* *bom*
CL.PL-person AM CL-two be_there

(3b) *a-sho* *ni* *hum*
3PL-be LOC there
'There were two people.'

(4a) *imbɔɔ* *a-sho* *a-lau*
3PL.PRO 3PL-be CL.PL-hunter

(4b) *k-a-wur* *ni* *u-kagoro*
X-3PL-come_out LOC CL-Kagoro

(4c) *a-jẽẽ-bɔɔ* *i-lau* *u-dẽ* *o* *o-bẽ* *a* *a-shɛ*
3PL-go-3PL.ICP CL-hunting CL-side AM CL-land AM CL-Ashɛ
'They were hunters, and they came from Kagoro and went hunting on Ashe lands.'

(5a) *imbɔɔ* *bik* *a-jẽẽ* *k-a-jẽẽ* *a-tũ-ã* *ni* *i-gõõ* *na* *a-jei*
3PL.PRO COND 3PL-go HAB-3PL-go 3PL-stay-X LOC CL-hill AM CL-Ajei

(5b) *i-gõõ* *nyom* *a-tõr* *no*
CL-hill be_there CL-Katugal DIST
'When they went, they usually stayed a short time at the Hill of Ajei; that's the one that is in Katugal.'

(6) *ni* *a-aak* *a-daak* *hum* *o-cu* *ha*
CLM 3PL-be_then 3PL-descend there CL-time DEM
'Then they descended there at that time.'

(7) *a-jẽẽ-bɔɔ* *i-lau-kpe* *e* *imbɔɔ* *u-dẽ* *in-kojok*
3PL-go-3PL.ICP CL-hunting-DEF AM 3PL.PRO CL-side CL-Nkojo
'They went to their hunting on the Nkojo side.'

(8) *imbɔɔ* *k-a-jẽẽ* *a-jẽẽ* *a-dur* *i-jok* *i-rɛ*
3PL.PRO HAB-3PL-go 3PL-go 3PL-catch CL-guinea_fowl 3PL-be_many

i-rɛ *ni* *iyɔɔ* *ni* *a-koi* *a* *a-kojok*
3PL-be_many LOC DEM.PRO LOC CL-forest AM CL-Nkojo
'They typically went out and caught many guinea fowl here in the forest of Nkojo.'

(9a) *o-cu* *o-jẽẽ*
CL-time 3SG-go

(9b) *ni* *o-ba*
DM 3SG-come
'Time went on.'

(10a) *u-ɲyiŋ* *ni* *o-shɔ* *e* *imbɔɔ* *u-ŋwɛ* *sh-u* *ciki-i*
CL-one LOC CL-inside AM 3PL.PRO CL-child BM-3SG be_young-NOMR1

a-hɛɛ *sh-u* *kõ-i* *ɛti*
3SG-say BM-3SG be_old-NOMR1 QM

(10b) *ime* *shi* *in-jẽẽ* *in-jẽẽ* *in-nɔɔ* *ni* *a-koi* *ha-no*
1SG.PRO FUT 1SG-go 1SG-go 1SG-sleep LOC CL-forest DEM-DIST

(10c) *ni* *e-nɛŋ*
LOC CL-place

(10d) *e* *i-jok* *shi* *k-i-sho*
REL CL.PL-guinea_fowl FUT HAB-3PL-be

(10e) *ni* *in-nɛhe* *in-gui*
CLM.PURP 1SG-avoid 1SG-return

(10f) *ni* *in-hwa* *i-hãrã* *e* *e-wurta-ko*
CLM.ADD 1SG-drink CL-suffering AM CL-come-NOMR

(10g) *ankaŋ* *in-jẽẽ*
NDEF[54] 1SG-go
'The first of them, the younger one, said to the older one, "I will go and settle in the forest where the guinea fowl are typically found, so that I may avoid repeating the suffering of coming out here whenever I go.'

(11) *iye* *a-shok* *hum* *o-te* *ha*
3SG.PRO 3SG-get_up there CL-time DEM
'He got up to go there at that time.'

(12) *a-jẽẽ-i*
3SG-go-3SG.ICP
'He went.'

(13) *jẽẽ* *a-tɛɛr* *a-teu* *a*[55] *a-koi* *a* *a-kojok*
DM 3SG-clear CL-center AM CL-forest AM CL-Nkojo
'He cleared the center of the forest of Nkojo.'

(14) *ni* *a-jin* *a-ɛi-le* *e* *iye* *ni* *hum*
CLM 3SG-build CL-house-DEF AM 3SG.PRO LOC there
'He built his house there.'

(15) *u-ner* *e* *i-hwɛi-le* *a-shok* *e* *iye*
CL-person AM CL-two-DEF 3SG-get_up AM 3SG.PRO
'The second person himself got up.'

(16a) *a-cikpi-i* *ni* *i-gõõ-i*
3SG-come_down-3SG.ICP LOC CL-hill-DEF

(16b) *a-jẽẽ-i* *u-dẽ* *a* *a-tõr*
3SG-go-3SG.ICP CL-side AM CL-Katugal
'He came down the hill and he went to the Katugal side.'

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[54] From Hausa.

[55] I hear an intervening sound in the audio that wasn't transcribed. I have left this as it was given to me.

(17) *iye* *g-a-jẽẽ̃* *a-dok* *e-nɛŋ* *ni* *o-shĩ-ĩ*[56] *e*
3SG.PRO X-3SG-go 3SG-found CL-place LOC CL-underneath-DEF AM

i-gõõ-i
CL-hill-DEF
'He went again and found a place below the hill.'

(18) *a-jin* *a-ɛi-le* *e* *iye* *hum*
3SG-build CL-house-DEF AM 3SG.PRO there
'He built his house there.'

(19) *e* *iye* *o-teu-kpe* *o-gõõ-ni* *a-tõr*
AM 3SG.PRO CL-village-DEF 3SG-be_called-X CL-Katugal
'His village is called Katugal.'

(20) *u-yɔɔ* *nɔko* *sh-a-jẽẽ̃-i* *ni* *a-koi* *ha-no*
X-DEM.PRO other BM-3SG-go-3SG.ICP LOC CL-forest DEM-DIST
'This other one went to that forest.'

(21a) *e* *iye* *o-teu-kpe* *o-gõõ-ni* *a-koi* *e* *i-jok*
AM 3SG.PRO CL-village-DEF 3SG-be_called-X CL-forest AM CL-guinea_fowl

(21b) *hɛre* *i-jok* *k-i-sho* *ni* *a-koi-she*
because CL-guinea_fowl HAB-3SG-be LOC CL-forest-DEF
'His village is called Akoi e Ijok [Forest of the Guinea Fowl], because the guinea fowl are usually in the forest.'

(22) *iyɔ* *i-tuk*
PRO.DEM 3SG-put
'This one puts (the name) [i.e., this one names it].'

(23a) *iye* *a-tar-ke* *e-cok-e*
3SG.PRO 3SG-choose-APL CL-name-DEF

(23b) *ɛti* *a-koi* *e* *i-jok*
QM CL-forest AM CL-guinea_fowl
'He chooses the name Akoi e Ijok.'

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[56] This seems to be a different word in the audio. I have maintained it as it was given in the original transcription.

(24) *imbɔɔ* *a-kojok* *a-shok*
3PL.PRO CL.PL-Nkojo 3PL-get_up
'The Nkojo's, they got up.'

(25) *a-kama* *a-na* *a-ŋu-i* *ni* *a-koi* *ha-no*
3PL-continue 3PL-continue CL-live-NOMR1 LOC CL-forest DEM-DIST
'They still keep living in that forest.'

(26) *a-kau* *i-ram-ŋwe* *e* *imbɔɔ* *ni* *hum*
3PL-farm CL-farm-DEF AM 3PL.PRO LOC there
'They farmed their farms there;'

(27) *ni* *a-kpea* *ko* *u-ŋwe* *e* *imbɔɔ* *ni* *hum*
CLM 3PL-do NDEF[57] CL-what AM 3PL.PRO LOC there
'they did whatever they had to do there.'

(28a) *bik* *u-jẽẽ* *ni* *a-koi-she* *nik* *incɛŋ*
COND 2SG-go LOC CL-forest-DEF up_to now

(28b) *sh-u-jɛ̃* *e-nɛŋ* *e-com*
FUT-2SG-see CL-place CL-certain

(28c) *e-nɛŋ*
CL-place

(28d) *e* *imbɔɔ* *shi* *k-a-sher* *i-yɛi-le* *e* *imbɔɔ*
REL 3PL.PRO BM HAB-3PL-sit CL-discussion-DEF AM 3PL.PRO
'If you go to that forest even up till now, you'll see a certain place, a place where they usually sit for their discussion.'

(29a) *bik* *a-sho* *u-bin*
COND 3PL-be CL-thing

(29b) *u-ba* *ni* *o-teu-kpe*
3SG-come LOC CL-village-DEF

[57] From Hausa.

(29c) *a-bik* *a-bera* *a-dam*
3PL-COND 3PL-want CL-announcement

(29d) *akwai* *i-tɛi-le*
there_is CL.PL-stone-DEF

(29e) *e* *imbɔɔ* *shi* *k-a-sher* *ni* *hum*
REL 3PL.PRO BM HAB-3PL-sit LOC there
'If something [i.e., some issue] comes to the village and they want an announcement, then there are the stones where they usually sit (to do that).'

(30) *nik* *incɛŋ* *ime* *sh-in-na* *a-yei* *nɛ*
up_to now 1SG.PRO BM-1SG-continue CL.PL-discussion PROX
'Up till now, as I continue my discussion here:'

(31) *i-tɛi* *ha-no* *i-nɔɔ* *ni* *hum*
CL.PL-stone DEM-DIST 3SG-lie LOC there
'Those stones sill lie there.'

(32) *ni* *o-shɔ* *e* *i-tɛi* *ha-no* *ke-dik*[58] *e-sher-ti* *ba*
LOC CL-inside AM CL.PL-stone DEM-DIST 1PL-just CL-sit-NOMR1 NEG
'Among those stones, it's not just, "Sit (wherever)".'

(33a) *ko* *be* *i-nyaa* *ni* *a-ɛi-le* *e* *imbɔɔ* *ni*
NDEF[59] ASC.PL CL-who LOC CL-house-DEF AM 3PL.PRO LOC

i-mar-ke *e* *imbɔɔ*
CL-clan-DEF AM 3PL.PRO

(33b) *a-sho* *ni* *o-tɛi-le* *e* *imbɔɔ*
3PL-be LOC CL-stone-DEF AM 3PL.PRO
'Whoever's in their house, in their clan, is at their (own) stone'

[58] This is clearly preceded by another word, possibly *hã̀* (NEG) used as part of the negation paradigm.

[59] From Hausa.

(34) *a-hãmbazo a-sho ni o-tɛi-le e imbɔɔ*
CL-Hãmbazo 3PL-be LOC CL-stone-DEF AM 3PL.PRO
'The Ahãmbazo are at their stone.'

(35) *a-nɔr e in-bini a-sho ni o-tɛi-le e imbɔɔ*
CL.PL-south AM CL-Bini 3PL-be LOC CL-stone-DEF AM 3PL.PRO
'The Southerners of the Inbini (clan) are at theirs.'

(36) *a-nɔr e i-jim a-sho ni o-tɛi-le e imbɔɔ*
CL.PL-south AM CL-Jim 3PL-be LOC CL-stone-DEF AM 3PL.PRO
'The Southerners of the Ijim (clan) are at theirs.'

(37) *a-nɔr e i-pada a-sho ni o-tɛi-le e imbɔɔ*
CL.PL-south AM CL-Pada 3PL-be LOC CL-stone-DEF AM 3PL.PRO
'The Southerners of the Pada (clan) are at theirs.'

(38) *a-gar a a-nkpaŋ imbɔɔ sh-a-ba ni o-bur*
CL.PL-side AM CL.PL-Nyankpa 3PL.PRO BM-3PL-come LOC CL-later
'The Nyankpa side came later.'

(39a) *e imbɔɔ u-tarihi-n*
X 3PL.PRO CL-history-AM[60]

(39b) *ɛti imbɔɔ a-sho a a-nkpaŋ*
QM 3PL.PRO 3PL-be AM CL.PL-Nyankpa
'Their history says they are of the Nyankpa.'

(40a) *imbɔɔ bik a-ba*
3PL.PRO COND 3PL-come

(40b) *imbɔɔ k-a-ba a-sher e imbɔɔ ni a-dɛi*
3PL.PRO HAB-3PL-come 3PL-sit AM 3PL.PRO LOC CL.PL-entrance
'When they come, they usually sit at the entrance.'

(41a) *a-kojok a-nɛnɛ imbɔɔ ni o-cu ha*
CL.PL-Nkojo 3PL-take 3PL.PRO LOC CL-time DEF

[60] From Hausa.

(41b) *imbɔɔ* *a-sho* *a-ner* *e* *i-jɛu*
3PL.PRO 3PL-be CL-people AM CL-watching
'The Nkojo's take them at that time and serve as the watchmen.'

(42a) *imbɔɔ* *k-a-dẽẽ̃* *ni* *a-dɛi*
3PL.PRO HAB-3PL-stand LOC CL.PL-entrance

(42b) *ni* *a-jɛ̃̃*
CLM.ADD 3PL-see

(42c) *bik* *a-sho* *u-bin*
COND 3PL-be CL-thing

(42d) *sh-u-biwi* *u-ba*
FUT-3SG-be_bad 3SG-come
'They usually stand at the entrances in order to watch and see if anything bad might be coming.'

(43a) *imbɔɔ* *a-aak* *a-hɛɛ-he* *a-neke* *e* *imbɔɔ*
3PL.PRO 3PL-be_then 3PL-say-APL CL-people REL 3PL.PRO

(43b) *sh-a-sho* *ni* *o-shɔ-i*
BM-3PL-be LOC CL-inside-DEF
'They then tell their people that they're with.'

(44) *k-a-kama* *a-kpe-a* *inom*
HAB-3PL-continue 3PL-do-X like_that
'They keep on doing that;'

(45) *k-a-kama* *a-kpe-a* *inom*
HAB-3PL-continue 3PL-do-X like_that
'they keep on doing that.'

(46a) *akwai* *e-nɛŋ* *e-com* *hum* *nik* *incɛŋ*
there_is CL-place CL-certain there up_to now

(46b) *ke-shi* *ke-hɛɛ*
1PL-BM 1PL-say

(46c) *ɛti* *o-tai* *o* *u-ngɛlɛ*
QM CL-cave AM CL-Ungɛle

(46d) *e-nɛŋ*
CL-place

(46e) *e* *inte* *shi* *k-e-jɛ̃ɛ̃* *e-wa* *wa* *a-wa-a*
REL 1PL.PRO BM HAB-1PL-go 1PL-bathe bathe CL-bathe-NOMR2
'There is a certain place there up till that now that we call the Cave of Ungɛlɛ, a place where we usually go do our bathing.'

(47a) *nik* *incɛŋ* *sh-a-kõ* *a-hɛɛ-wa* *inte*
up_to now BM-3PL-be_old 3PL-say-APL 1PL.PRO

(47b) *ɛti* *e-nɛŋ* *e-com* *e-sho* *ni* *hum*
QM CL-place CL-certain 3SG-be LOC there
'Even now, the elders tell us that another place is there [i.e., possibly that the Cave of Ungɛlɛ is actually the location of another important place].'

(48) *amma* *inte* *nahã* *e-jɛ̃-yir* *e-nɛŋ-e*
however 1PL.PRO PERF.NEG 1PL-see-1PL.ICP CL-place-DEF
'However, we have never seen the place.'

(49a) *bik* *a-shei* *imbɔɔ*
COND 3PL-be_not 3PL.PRO

(49b) *sh-a-kõ*
BM-3PL-be_old

(49c) *a-hwɛŋ* *e-nɛŋ-e*
3PL-know CL-place-DEF
'Only the elders know the place.'

(50a) *ni* *o-cu* *ha* *bik* *a-sho* *i-wa*
LOC CL-time DEM COND 3PL-be CL-war

(50b) *i-ba* *u-kojok*
3SG-come CL-Nkojo

(50c) *ko cak e imbɔɔ k-a-tõrõõ u-tɔk-e*
X all AM 3PL.PRO HAB-3PL-line_up CL-together-DEF
'At that time, if war were to come to the Nkojo's, they would all line up together.'

(51) *a-nyi-bɔɔ hum*
3PL-enter-3PL.ICP there
'They entered there.'

(52a) *a-ner e i-wa ha-no bik a-ba*
CL.PL-person AM CL-war DEM-DIST COND 3PL-come

(52b) *shina a-doka imbɔɔ ba*
FUT:NEG 3PL-find:X 3PL.PRO NEG
'If any warriors were to come, they wouldn't find them;'

(53) *ni g-a-ci-he o-hwei ha-no ni o-kɔk*
CLM X-3PL-cover-APL CL-hole DEM-DIST COM CL-millstone
'they would cover that hole using a millstone.'

(54) *sh-a-cɛi k-a-dẽẽ i-jɛu-kpe*
BM-3PL-be_female HAB-3PL-stand CL-outside-DEF
'The women usually stand outside;'

(55a) *ni a-hɛ-he a-neke*
CLM 3PL-say-APL CL-people

(55b) *e imbɔɔ sh-a-sho ni o-shɔ-i*
REL 3PL.PRO BM-3PL-be LOC CL-inside-DEF
'they tell the people who are inside (if something bad is coming).'

(56a) *kɔtɔ inom*
live like_that

(56b) *a-kɔtɔ inom*
3PL-live like_that

(56c) *a-kɔtɔ inom*
3PL-live like_that
'(They) live like that; they live like that; they live like that.'

(57) *tɔ* *i-ram-ŋwe* *e* *imbɔɔ* *ni* *o-cu* *ha* *i-sho* *a-gutamai*
well CL-farming-DEF AM 3PL.PRO LOC CL-time DEM 3SG-be CL-maize
'Well, at that time they farmed corn.'

(58a) *kita* *a-ba* *ni* *o-bur*
later 3PL-come LOC CL-later

(58b) *o-yer* *o* *u-citta* *o-ba*
CL-issue AM CL-ginger 3SG-come

(58c) *o-nyi*
3SG-enter
'Then later the deal with the ginger came on the scene.'

(59a) *a-kojok* *a-kau* *u-citta* *ni* *a-koi* *ha-no* *shɔu-kpe*
CL.PL-Nkojo 3PL-farm CL-ginger LOC CL-forest DEM-DIST likeness-DEF

e *i-shɛɛ*
AM CL-nonsense

(59b) *tun* *ko* *o-cu-i*
until NDEF[61] CL-time-DEF

(59c) *e* *imbɔɔ*[62] *k-a-nee* *e-ɔrɔ* *u-citta* *ni* *i-cɔk*
REL 3PL.PRO HAB-3PL-continue CL-scrape CL-ginger COM CL-spoon
'The Nkojo's farmed ginger like crazy in that forest, till they'd be sitting there scraping ginger with a spoon.'

(60a) *inte* *nɛ* *ke-shok*
1PL.PRO PROX 1PL-get_up

(60b) *ke-ɔrɔ* *u-citta* *ha* *ni* *i-cɔk*
1PL-scrape CL-ginger DEM COM CL-spoon
'We got up and scraped ginger with a spoon.'

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[61] From Hausa.

[62] Although this seems to be exceptionally reduced in the audio, I have kept the original gloss as it was given to me.

(61a) *kpe-a* *inom*
do-X like_that

(61b) *kpe-a* *inom*
do-X like_that

(61c) *har* *a-shu* *a-ba* *a-tan*
until CL.PL-eye 3PL-come 3PL-open
'They did that; they did that till their eyes came to be opened.'

(62a) *imbɔɔ* *a-shai* *a-wur-ti*
3PL.PRO 3PL-begin CL-come_out-NOMR1

(62b) *a-nyiŋ*
3PL-
be_one

(62c) *a-nyiŋ*
3PL-
be_one

(62d) *a-ba-bɔɔ* *ni* *o-ku-ŋwe*
3PL-come-3PL.ICP LOC CL-edge-DEF

(62e) *ni* *e-nɛŋ* *e*
LOC CL-place REL

(62f) *imbɔɔ* *a-kojok* *sh-a-nɔ* *inceŋ*
3PL.PRO CL.PL-Nkojo BM-3PL-settle now
'They started coming out one by one, coming to the edge of the place where the Nkojo's are now settled.'

(63a) *a-kama* *a-wur-shi* *i-shɔuhɔ*
3PL-continue CL-come_out-PL.NOMR1 CL-likeness

(63b) *a-kama* *a-wur-shi* *i-shɔuhɔ*
3PL-continue CL-come_out-PL.NOMR1 CL-likeness

(63c) *a-nyiŋ*
3PL-be_one

(63d) *a-nyiŋ*
3PL-be_one

(63e) *har* *a-ba*
until 3PL-come

(63f) *a-wur-sha*
3PL-come_out-X

(63g) *a-maa-bɔɔ*
3PL-finish-3PL.ICP
'They kept coming out like that; they kept coming out like that one by one till they were all finished coming out.'

(64) *a-koi* *ha-no* *o-cu* *ha* *a-mɛɛk-kɔ* *e-nyaŋ*
CL-forest DEM-DIST CL-time DEM 3SG-turn-3SG.ICP CL-ruin
'That forest [i.e., where they lived] has now turned to ruins.'

(65) *a-mɛɛk* *a-sho* *e-nɛŋ* *e* *i-ram*
3SG-turn 3SG-be CL-place AM CL-farming
'It turned into a place of farming.'

(66) *ni* *a-teu* *a* *a-koi-she* *nik* *incɛŋ* *hã* *k-a-kaupi-bɔɔ*
LOC CL-center AM CL-forest-DEF up_to now NEG HAB-3PL-farm:X-3PL.ICP

i-ram *ni* *hum* *ba*
CL-farming LOC there NEG
'At the center of that forest till now, they don't usually farm there.'

(67a) *k-a-hɛɛ*
X-3PL-say

(67b) *ɛti* *a-koi* *e* *i-naŋbishi* *kom* *no* *ni* *hum*
QM CL-forest AM CL-masquerade be_there DIST LOC there
'They say, "That's where the Forest of the Masquerade is."'

(68) *a-nya-he* *u-neke* *a-kau-pi* *e* *i-ram*
3PL-refuse-APL CL-person CL-farming-NOMR1 AM CL-farm

(69a) *ko* *agɛ* *e* *i-nak* *hã* *k-a-yari-bɔɔ* *i-nak*
even CL.PL:X AM CL.PL-cow NEG HAB-3PL-graze:X-3PL.ICP CL.PL-cow

(69b) *a-jẽẽ-bɔɔ* *hum* *ba*
3PL-go-3PL.ICP there NEG
'even the Fulani don't graze their cattle there.'

(70) *domin* *a-bin* *a* *a-tɛtɛ* *sh-a-kõ* *nik* *incɛŋ*
because CL.PL-thing AM CL.PL-elder BM-3PL-be_old up_to now

a-na *a-sho* *ni* *hum*
3PL-continue CL-be LOC there
'(This is) because the ancient things of the elders are still there.'

(71a) *iyɔɔ* *i-tuk* *a-kojok* *ni* *a-tõr*
DEM.PRO 3SG-put CL.PL-Nkojo COM CL.PL-Katugal

(71b) *a-sho* *a-ndɔk*
3PL-be CL.PL-friend

(71c) *a-g-a-sho* *a-ŋwɛ-bɔɔ*
3PL-X-3PL-be CL.PL-brother-3PL.ICP
'This all makes the Nkojo's and the Katugal's friends; it makes them brothers.'

(72a) *i-naŋgbishi* *bik*[63] *e-wur-ta* *ni* *a-tõr* *incɛŋ*
CL-masquerade COND 3SG-come_out-X LOC CL-Katugal now

(72b) *bik* *sh-a-tuk* *i-tasha*[64]
COND FUT-3SG-put CL-Itasha

[63] I believe I hear *bik a-sho* (COND 3PL-be), though I have left the gloss as it was given to me.

[64] This appears to be a different word in the audio. I have left the gloss in its original form, however.

(72c) *i-naŋgbishi* *a* *a-kojok* *bik* *a-nahã* *a-jẽẽ-i*
CL-masquerade AM CL.PL-Nkojo COND 3SG-not_yet CL-go-NOMR1

(72d) *tɔ* *a-kama* *a-jɛu-pi* *e* *imbɔɔ* *kom*[65]
well 3PL-continue CL-watch-NOMR1 AM 3PL.PRO certain
'If the masquerade goes on among the Katugal, if they put on the Itasha memorial, and if the Nkojok's have not yet come out, then they keep watching for them there;'

(73) *sai* *a-kojok* *a-jẽẽ*
DM CL.PL-Nkojo 3PL-go
'(to see) if the Nkojo's go.'

(74a) *bik* *shi* *g-a-kpea* *ni* *in-kojok*
COND FUT X-3PL-do:X LOC CL-Nkojo

(74b) *i-naŋgbishi* *a* *a-tõr* *bik* *a-nahã* *a-jẽẽ-i*
CL-masquerade AM CL.PL-Katugal COND 3SG-not_yet CL-go-NOMR1

u-kojok
CL-Nkojo

(74c) *sai* *a-jɛu*
DM 3PL-watch

(74d) *sai* *a-ba*
DM 3PL-come
'If the Nkojok's intend do the masquerade again, and the masquerade of the Katugal's has not yet come out to Nkojo, (then) they watch (till) they come.

(75a) *kita* *a-na* *a-kama* *a* *a-yitik* *o* *u-gai*
later 3PL-continue CL-continue\NOMR AM CL-remember\NOMR AM CL-tree

ume *e* *e-sha* *ha-no*
DEM.PROX AM CL-long_ago DEM-DIST

[65] This is unclear; it is present (though unglossed) in the transcript, but it's unclear if it exists in the associated audio.

(75b) *hɛ* *e* *imbɔɔ* *sh-a-wur*
because AM 3PL.PRO BM-3PL-come_out

(75c) *e-nɛŋ* *e-nyiŋ* *i-hwɛi* *ne* *e* *imbɔɔ*
CL-place 3SG-be_one CL-two PROX AM 3PL.PRO
'Since then, they've kept the memory of that tree from long ago, because the two of them came out from the same place.'

(76a) *u-ner* *e* *in-kojok* *ni* *u-ner* *a* *a-tõr* *i-teŋgashe*
CL-person AM CL-Nkojo COM CL-person AM CL-Katugal CL-Lord

a-tuk *i-hwɛi~hwɛi*
3SG-put CL-two~two

(76b) *i-nyom* *e* *imbɔɔ* *no*
CL-certain AM 3PL.PRO DIST
'(For) the man of Nkojok and the man of Katugal: may the Lord make them both as one.'

(77) *i-taka* *a-le-i* *e* *i-hĩĩdẽ*
3SG-add CL-eat-NOMR1 AM CL-success
'(May the Lord) add success (to them).'

(78) *o-sho* *i-shɔuhɔ*
3SG-be CL-likeness
'Amen [lit., "may it be like that]."

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