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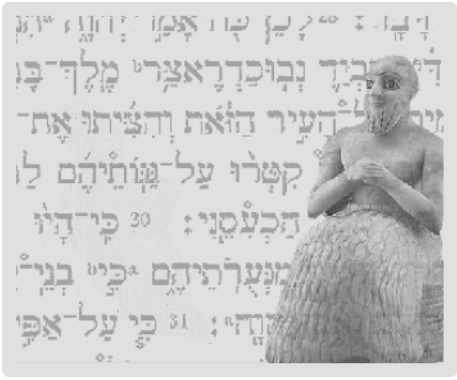

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AN OPTATIVE INDICATIVE? A REAL FACTUAL PAST? TOWARD A COGNITIVE-TYPOLOGICAL APPROACH TO THE PRECATIVE *QATAL*[1]

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1. INTRODUCTION

1.1. THE PROBLEM OF THE OPTATIVE QATAL

The Biblical Hebrew (BH) suffix conjugation *qatal* is typically an indicative formation with the sense of a present perfect, pluperfect, perfective and past tense (*vide* McFall 1982: 186–7, Waltke and O'Connor 1990: 483–91 and Cook 2002: 209). In other, less common indicative uses, this gram functions as a stative (particularly when formed from adjectival and static roots) as well as a prospective category. The prevalence of the indicative group of values (which generally comprises 98% of all uses)—and especially of the perfect-perfective-past (PPP) subclass—in comparison with modal shades of meaning (1,5%)[2] is so evident that grammarians in their semantic definitions and explanations of the *qatal* form have repeatedly focused on this portion of the gram's meaning. As a result, they have viewed the construction as an indicative perfect (*vide* Cohen 1924: 10–16, Kuryłowicz 1972: 80–82 and, to an extent, Gesenius, Kautzsch and Cowley 1910 and Cook 2002: 269–

[1] The present article is part of a series of studies devoted to marginal or rare senses provided by the *qatal* in Biblical Hebrew. Other articles address performative (Andrason 2012a), counterfactual (Andrason 2013) and prospective senses (Andrason forthcoming). As a consequence, the content of certain portions of sections dedicated to the methodology and the theoretical framework (see part 1.3 below), although not simply identical, necessarily presents some significant similarities.

[2] The remaining 0.5% corresponds to so-called non-verbal uses (McFall 1982: 186–7). The quoted percentages must of course be treated with caution, given that they do not refer to the senses provided by the *qatal* in concrete instances in the Hebrew text but to their English translations in the Revised Standard Version. However, they may be employed as indicators of certain general tendencies, in this case, of a prototypical indicative use of the suffix conjugation.

70), perfective (*vide* Ewald 1870: 349 and 1879: 1–3, S. R. Driver 1892: 1–5, 13–26, Davidson 1902: 58–63, Joüon 1923: 289–97, Watts 1951: 12–32, Waltke and O'Connor 1990: 479–86, Van der Merwe, Naudé and Kroeze 1999: 68–70, Andersen 2000: 1–66 and, partly, Cook 2002: 269–72) or past (*vide* early editions of Gesenius' grammar 1813–1842: 203–4, also comparatively Joüon 1923: 290–91, 296 or Weingreen 1939: 56, as well as Barnes 1965: 7, Blau 1971: 24–26, Zuber 1986: 27 and Zevit 1988: 25–33). The use of the term commonly depends on whether the domain of taxis, aspect or tense was regarded as the most relevant and/or inherent to the BH gram. Moreover, the exemplarity, as far as the indicative function is concerned, has usually led scholars to comprehend the locution as being systematically opposed to the modally marked *yiqtol* (*vide* Gesenius, Kautzsch and Cowley 1910: 313, Joüon 1923: 304–7, Watts 1950: 12–13, 33, 48, Waltke and O'Connor 1990: 493, 496–502, Van der Merwe, Naudé and Kroeze 1999: 144, 148–9 and Cook 2002: 271). In recent times, this intrinsically indicative character of the *qatal* has found its overt expression in so-called modal representations of the BH verbal system (i.e., in models that consider the feature of modality as central or highly pertinent in the BH organization). In such analyses, the *qatal* is normally classified as an indicative *realis* (Loprieno 1986: 110 and Rattray 1992: 149–50), a "recto-Form" of indicative statements (Zuber 1986: 27), an indicative anterior (Joosten 1999: 16), a non-modal (sentence non-initial) past (DeCaen 1999: 124), or a non-modal perfect (Hatav 1997: 29).[3]

Despite this typicality of the *qatal*'s indicative value, and despite the almost unanimous agreement of grammarians concerning the identification of the formation with an indicative category, scholars have always noticed some paradoxical instances in which the gram behaves as if it were a modal formation. One of these modal uses corresponds to cases where the suffix conjugation is employed as an optative or imperative, expressing real and factual wishes and commands. For the main, such uses correspond to what the grammatical tradition designates as the "precative *qatal*."[4]

[3] Hatav (1997: 29) additionally characterizes the gram as non-sequential and non-progressive.

[4] The remaining modal uses appears when the gram is used with a counterfactual real or unreal force (typically in conditional and optative phrases introduced by the particles לוּ and לוּלֵי; *vide* Andrason 2013) and with a real factual hypothetical sense (especially in conditional protases introduced by אִם).

1.2. THE GRAMMATICAL TRADITION ON THE PRECATIVE QATAL

In the literature published thus far, one may distinguish two main trends with regard to the precative *qatal*. One such trend, which is dominant among scholars, acknowledges this use of the suffix conjugation; whereas the other, less standard approach rejects it.

The former view is defended by Ewald (1855) who observes that the *qatal*—in keeping with the usage detected in Arabic—may be employed with a precative force. Similarly, Davidson (1902: 63) notes that the *qatal* sometimes expresses wishes. Although Davidson considers the usage as "strange," he does view it as reconcilable with the inherent perfective meaning of the suffix conjugation. Namely, the precative sense is explained as being "allied" to the so-called *futurum confidentiae*: a strong wish causes a given activity to be conceived as already accomplished, and may therefore be conveyed by a perfective *qatal*. Likewise Joüon (1923: 300) fully accepts the optative value of the *qatal*. In his opinion, however, this sense stems from the fact that the *qatal* was originally a stative "conjugated adjective" and that, as a nominal entity, it could easily take on an optative nuance. Only later, and by analogy with stative predicates, was the *qatal* of active verbs employed in an optative manner (cf. Joüon and Muraoka 2009: 336–7). G. R. Driver (1936: 118 and 148) defends the precative *qatal* and argues that despite its scarcity, "there can be no real objection to admitting . . . the actual traces of a precative or optative [*qatal*]" (in his terms, a "perfect"). Likewise Ginsberg (1936: 177, 224–30) and, later, Moran (1961: 65) postulate that in light of the evidence gained from other Semitic languages, one of the original uses of the *qatal* must have corresponded to the optative function which, in turn, justified the development of the modal-future *weqatal*. The most notable justification and argument in favor of the precative usage of the suffix conjugation was presented by Buttenwieser (1938). Buttenwieser (1938: 18–25) strongly defends the precative *qatal* and establishes the following formal or, at least, more overt conditions for its occurrence: the precative *qatal* appears in contexts of prayers or implorations, and alternates with the *yiqtol* or the imperative *qətol*. The ideas of Buttenwieser were maintained by Dahood (1966: 23), who in his commentaries on Psalms fully respected the precative function of this gram. Following Buttenwieser and Dahood, Hughes (1970: 22–24) also acknowledges the precative value of the *qatal*; in his opinion this usage approximates the Greek perfective (i.e., aorist) optative and the perfective (aorist) imperative employed in pleas and supplications. However, contrary to the aspectual school (*vide* supra Davidson 1902), Hughes does not explain this usage by referring to a supposedly inherent perfective load of the formation. He simply sees the real factual optative sense of the *qatal* as a "stereotyped syntactical construction" (ibid.: 24). Rundgren (1959: 110–13) acknowledges the precative use of the *qatal* and explains it as a neutralization of its fientive and constative "aspect." Waltke

and O'Connor (1990) profoundly revitalized the idea of the precative *qatal*, considering this sense as a genuine component of the meaning of the suffix conjugation, a "perfective" in their terminology. In their judgment, the precative use of the gram is a type of "perfective of prayer" (ibid.: 494)—it is thus an expression of perfective realizable wishes, being found in the context of volitional or deontic modality, especially in the Psalms. They conclude that there is no reason to reject the precative value if scholars generally agree on the real/unreal counterfactual (either hypothetical or optative) use of the *qatal* in prayers (ibid.: 495).

This brief review shows that, within the circle of grammarians who acknowledge the precative usage of the *qatal*, one may distinguish three sub-factions with regard to the relation between the precative *qatal* and the dominant use of *qatal*: a) those who explain this sense as a realization (or neutralization) of the main aspectual (i.e., perfective) value of the formation (*vide* supra Davidson 1902, Rundgren 1959 and, especially, Waltke and O'Connor 1990); b) those who do not link the precative sense to the synchronic semantics of the formation but rather to its nominal origin (*vide* supra Jouön 1923 and Jouön and Muraoka 2009) or to cognate grams in other Semitic languages (*vide* supra Ewald 1855, Ginsberg 1936 and Moran 1961); and c) those who deny any relation between the dominant meaning of the *qatal* and its precative value (*vide* supra Hughes 1970).

The other "school"—the one that denies that the *qatal* provides a real factual optative or precative sense—is less widespread, but is nonetheless represented by some important scholars. For instance, S. R. Driver (1892: 25–26) openly questions the precative *qatal* because this value, in his view, appears as entirely incongruent in comparison with the remaining semantic potential of the formation, and also because it is too scarcely documented. However, Driver hypothesizes that if it does exist, the precative *qatal* should be understood as an extension of the sense of the *futurum confidentiae*, or future of certainty (ibid.: 25; *vide* Davidson 1902, above). In a similar manner, Gesenius, Kautzsch and Cowley (1910: 312–3), and Bergsträsser (1918 and 1929) question the presence of the precative *qatal* in Biblical Hebrew. Finally, in recent times, Cook (2002: 231–2), agreeing with S. R. Driver (1892), considers that all the examples of the precative *qatal* should be explained as indicatives (i.e., as a perfect or a past).

Having presented the most salient opinions concerning the precative use of the suffix conjugation in Biblical Hebrew, an obvious question immediately arises: does the precative *qatal* exist or does it not? Which one of the two major tendencies is accurate: the one that acknowledges the precative sense or the one that rejects it?

Moreover, even if we follow the majority of grammarians and accept the precative *qatal* as a fact, we still need to ask how it is possible that a form which typically functions as an indicative perfect or a perfective past could likewise introduce real factual wishes

and orders, thereby referring to the present and future? Since no theory answers this question satisfactorily, we cannot automatically and unquestioningly recognize the analyses offered by the "pro-precative" scholars discussed above in this section. Furthermore, it was noted above that among scholars who accept the existence of the precative *qatal*, three main approaches can be identified with regard to the relation between the precative *qatal* and the dominant usage of qatal: they a) ignore or reject such a relation; b) explain it within a predominantly comparative-diachronic framework; or c) employ a procedure where they derive the precative use from the *inherent* value ascribed to the suffix conjugation. The first attitude is epistemologically erroneous, considering the fact that it fails to provide a complete explanation for the semantics of the gram and that it stands in contradiction with the principle of semantic organization of grammatical forms, whose polysemy is *per vim* internally related (*vide* infra the "principle of relatedness" in the following section). The second view, although appreciable, cannot be employed for a synchronic study—it certainly intends to explain how the gram has acquired the precative sense but it does not clearly connect this value to the dominant indicative usage in the period when biblical literature was composed.[5] Finally, the third posture is also inadequate given the fact that, for reasons described below, empirical studies show that the "inherent" meaning is a pure illusion, so that any explanation based on the notion of a derivation from such inherent meaning cannot be accepted as realistic nor as scientifically convincing.

In order to expose the deficiencies of approaches that are based upon derivation from an inherent meaning or that reject the connection between the indicative and precative senses, and in order to understand how it is possible to explain the fact that an indicative perfect or perfective past expresses a modal real factual (present-future) sense, the theoretical frame of reference which underlies this study will now be discussed. As will be explained, the theoretical outlook adopted in this study is more adequate for treatment of realistic linguistics objects—such as languages and their subparts—because it bestows us with a possibility of conceptualizing such objects in a way which is simultaneously less approximate and more "evidence friendly," but which still allows nonetheless for systematic formulations and generalizations.

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[5] The position expressed by Joüon (1923) and Joüon and Muraoka (2009), according to which the precative sense of the *qatal* derives from the fact that this construction has its roots in a Proto-Semitic nominal clause, is entirely correct (for details, see sections 2.2, 2.3 and 3.1 below). However, the models proposed by these scholars do not incorporate this diachronic information into a synchronic definition and classification of the *qatal* as a formation which, in the biblical literature, is typically used as an indicative perfect, perfective and past (dynamic roots) and as a present (static roots). As such, this line of explanation remains purely diachronic; compare Joüon and Muraoka 2009: 330–37.

1.3. THEORETICAL PRELIMINARIES AND RESEARCH STRATEGY

A verbal gram—like all components of a linguistic system—is typically polysemous. Polysemy or semantic diversity of a form is a rule because a construction may be employed (at least in living languages) in an infinite number of contexts that always differ in some traits. Among such semantically flexible values, some are dominant (or frequent), while others are marginal (or rare). Although such marginal and rare senses conveyed by a formation are often judged by speakers to be odd, and sometimes even incompatible with the main and emblematic uses, it is important to observe that their logical position in the gram's semantics is not less representative—nor less relevant—than the status of the prototypical functions.

First, once we consider that the principle of relatedness underlies grammatical and lexical polysemies, all senses displayed by a gram must somehow be related (Lewandowska-Tomaszczyk 2007: 140). This stems from—and *vice versa* implies that—polysemy is not a random collection of values but, on the contrary, constitutes a logical conceptual and diachronic whole. Put differently, the conceptual expansion of the semantic space from one sense into another is not a random and arbitrary phenomenon but, quite the opposite, is necessarily based upon and controlled by universal human cognitive mechanisms (Evans and Green 2006: 169–70, 331–3). If a form is employed with a certain sense that has not belonged to its semantic ambit before, the use of this new value is possible because there exists a conceptual procedure (e.g., metaphor or metonymy) that allows it. Generally speaking, polysemies develop in a rational and cognitively plausible manner.

Yet the bond between a given value and its immediate extension—i.e., a new sense that emerges during the use of a form in a new context, in accordance with certain cognitive mechanisms—is not only conceptual, but also unavoidably historical. A new value that is conceptually drawn from another sense is *per vim* chronologically posterior. Consequently, the polysemy is temporarily connected: the link between senses corresponds to a diachronic spread from the values that are more original to those values which are chronologically more advanced (Tyler and Evans 2003: 344–6). As a result, the polysemy can be viewed as a network of interconnected senses, both conceptually (by means of cognitive procedures) and diachronically (developed historically one from another). Put differently, it constitutes a synchronic manifestation of cognitive evolutionary processes, where new meanings are gradually shaped. Since it represents a historical expansion, the linking of its components—and hence the elucidation of the laws triggering and enabling a determined extension or a series of extensions (i.e., changes from one sense into another)—should match a real evolutionary progression, during which older values progressively expand to new contexts, uses and senses (Lewandowska-

Tomaszczyk 2007: 140 and Van der Auwera and Gast 2011: 186–8).

Second, the polysemous nature of grams leads to the comprehension of the meaning of a formation as the form's entire semantic potential. This potential equals a semantic space which includes all possible shades of meaning—all the "atomic" senses that are activated in concrete empirical cases and that invariably depend on contextual factors. In other words, the meaning of a gram may be defined as a union set consisting of all individual atomic senses that can be identified and exist within concrete contexts. Consequently, given that these specific microscopic senses strongly depend on their contextual settings, the entire meaning of a form must necessarily be a contextual phenomenon (Evans and Green 2006: 352–3, 368 and Nikiforidou 2009: 17, 26). Furthermore, since the entire polysemy of a construction (i.e., its total meaning) relies on contextual factors, all empirically recorded or recordable atomic senses should be treated as having equal relevance, because all of them jointly constitute the overall meaning of the gram (Couper-Kuhlen and Selting 2001: 4–5, Croft and Cruse 2004: 258, Nikiforidou 2009: 16 and Helasvuo 2009: 70–72). One of the most important consequences of such an understanding of a form's semantics is that the notion of an "inherent" meaning needs to be abolished. The conventional, and typically structuralist, contrast between the inherent meaning and its contextual variations is thus replaced with a more realistic distinction where concrete empirical senses (i.e., the uses of a locution in a specific place and time) jointly contribute to the gram's total meaning (i.e., the summation of such specific values into a solid whole; *vide* Dahl 2000a: 14).[6]

[6] The inherent meaning—viewed as a semantic intersection set, i.e., the "shared value"—is a non-realistic and arbitrary phenomenon in the way that it fully depends on our categorization of reality and not on that reality itself. It is as easy to demonstrate that a gram has an invariant inherent value as it is to show that it is bereaved of it. Namely, we can freely deconstruct a given domain, which is allegedly shared by all uses, into more specific domains so that, at a certain split or division, the intersected set will become empty and the allegedly invariant value ceases to be shared by all uses. Inversely, we can group microscopic meanings into wider conceptual units so that constructions with an apparently non-shared value would display certain common characteristics. This originates in the fact that the partition of grammatical formations into more elementary meanings or functions depends on *our* conceptualization of reality. As a result, the positive or negative outcome of the operation derives from *our* partition of the real world. In other words, we can, without any restraint, play with categories, consistently proving and disproving the existence of a "shared" value. Thus, the very sense of the operation of intersection in determining the meaning of a category—and thus in establishing the invariant inherent value—seems highly dubious (Andrason 2011d).

But how can we scientifically represent the meaning of a form comprehended as its entire, contextually induced, semantic potential? Cognitive linguistics usually represents the semantic potential of a gram as a map of interconnected specific senses where each sense is related to its immediate predecessor(s) and/or successor(s). As explained, universal human cognitive mechanisms and their historical application guarantee the connections among the senses and thus impose the order and logic in a given map, leading from the more (graphically and diachronically) original to the more peripheral zones of the grid (Evans and Green 2006: 331–3). Typically, these connecting channels—like threads of a net—copy certain universal developmental tendencies (or deterministic laws, in a more radical version of this model), to form palpable traces of determined conceptual extensions, or changes from one sense to another. As extensive typological studies have shown, such general evolutionary propensities or rules control the grammatical life of determined "species" of grams. As far as the verbal system is concerned, they provide a model picture of how aspects, tenses and moods emerge, how they develop and how they die (*vide* Bybee, Perkins and Pagliuca 1994, Dahl 2000b and Andrason 2011a). Although these exemplary evolutionary scenarios (generally referred to as "paths") constitute, in principle, diachronic laws, they may nevertheless be employed for synchronic purposes. For example, using such clines as matrices for mapping (because the mapping reflects a conceptual and thus historical extension), we can chain the components of a given semantic network, enforcing its connection and order. Thus, typological diachronic universals enable us to posit a connection between the elements of a synchronically "measured" grid. In general terms, we match the synchronic variety of senses conveyed by a gram with possible universal evolutionary scenarios, and arrange them so that they would harmonize with and fit into a given developmental matrix (*vide* Andrason 2010a: 1–63, 2011b: 1–50 and 2011d: 30–34). As a result, the total meaning of a gram is portrayed as a fragment of a path or a cluster of paths (*vide* Van der Auwera and Gast 2011: 186–8, 281 and Andrason 2010a: 22, 2011a: 69–73 and 2011b: 30–31, 2011d: 30–31, 34).[7]

Respecting the principle of relatedness, and following the requirement of an egalitarian treatment of senses and their non-derivability from the inherent meaning, the present study aims at proposing a typological solution to the problem of the precative *qatal*. In agreement with the cognitive understanding of meaning, we will design a plausible chaining procedure that relates the preca-

[7] It should be noted that a path employed in order to elucidate a concrete polysemous network is both universal and realistic. It is universal because it is typologically plausible. However, it is also realistic, for it supposedly matches a real evolution of the gram in which the senses (as components of the grid) have progressively been acquired.

tive *qatal* to the prevailing indicative PPP domain of the gram. This fact—built on strong typological evidence—will subsequently support the "precative hypothesis," thus further linking this usage of the suffix conjugation to the situation found in genetically related languages, as well as to the Proto-Semitic (PS) origin of the formation.

Starting from the consideration that the chaining of the "path" applies to values that are synchronically available—and thus, that a detailed description of the senses that are intended to be chained necessarily precedes any proposal concerning their conceptual and diachronic linkage—we will first discuss in section 2.1 the precative *qatal* as it occurs in the Hebrew Bible, providing the most evident examples of the real factual optative and deontic sense of the gram in Biblical Hebrew. In particular, several semantic and syntactical properties of the precative *qatal* will be identified. These traits will later help us in providing a solid mapping, and thus a dynamic explanation, for this use of the *qatal*. Next, in section 2.2, we will determine the extent of the precative value of the suffix conjugation in other Semitic languages. Subsequently, we will verify whether the precative sense was original to the input construction from which the BH *qatal* emerged (section 2.3); put differently, we will examine whether the PS ancestor of the BH *qatal* was a real factual mood—or, if not, how this modal nuance gradually developed. After this, since the chaining of the precative value to the dominant semantic zone (and thus the ordering and rational integration of the polysemy) must be established by means of a typologically plausible path—or a cluster of them—we will provide a typological rationale that could motivate the conceptual and diachronic spread from the central point of the network (the original PS sense) to the values observed in BH, especially to the senses that belong to the indicative and precative domains. In this way, we will assure a relation between the two—superficially contradictory—semantic spheres (section 2.4). Finally, in the part devoted to conclusions, a map connecting the precative sense to the indicative PPP core of the *qatal* will be designed (section 3.1), and the advantages of this innovative modeling of the *qatal* form will be discussed; in particular, we will explain why the proposed model is more adequate than structuralist approaches (section 3.2). Additionally, other by-products of the research will be pointed out (section 3.3). On the whole, the cognitive justification of the precative *qatal* and its incorporation into the entire semantic potential of the gram will strengthen the "precative hypothesis" and contribute toward rendering the opposite view implausible.

It is important to emphasize that, although a great portion of the discussion is based on diachronic evidence, the objective of this article is not diachronic but synchronic.[8] The article aims at design-

[8] Various pieces of the comparative and diachronic evidence constitute well-known facts and are not intended therefore to be viewed as

ing a semantic map of the *qatal* which, in a logical and consistent manner, would incorporate the precative sense of this construction. In other words, our goal is to provide a synchronically valid definition of the semantics of the *qatal* which can account for its precative uses, showing—in accordance with the cognitive framework of this study—the conceptual rationale behind extensions of meanings that triggered the precative use of the gram.[9]

2. THE PRECATIVE *QATAL* AND ITS ANALYSIS

2.1. BIBLICAL HEBREW EVIDENCE

The instances where the *qatal* expresses realizable wishes or orders, approximating the category of a real factual optative, are highly infrequent.[10] In all such cases, the gram allegedly corresponds to the English imperative or to an optative periphrasis with the auxiliary *may* (e.g., *may you do/may it happen*).

The exemplary cases of the precative *qatal* are found in the Psalms and are introduced by an overt deontic form, in particular by an imperative (*vide* Buttenwieser 1938: 18–25). In such instances, the *qatal* denotes either strong wishes or commands that are directed to the same person, as is indicated by the imperative, viz. to the 2nd person (usually in the singular).

(1) a. Ps 22:22

הוֹשִׁיעֵנִי מִפִּי אַרְיֵה וּמִקַּרְנֵי רֵמִים **עֲנִיתָנִי**׃

Rescue me from the mouth of the lions; **save/may you save** me from the horns of the wild oxen[11]

b. Ps 4:2

בְּקָרְאִי עֲנֵנִי | אֱלֹהֵי צִדְקִי בַּצָּר **הִרְחַבְתָּ** לִּי חָנֵּנִי וּשְׁמַע תְּפִלָּתִי׃

"discoveries" by the present author.

[9] All of this means that the present article has been developed within the framework of what has been referred to as the "Stellenbosch Cognitive School" (SCS). The SCS includes researchers, related to Stellenbosch University, who analyze different aspects of the Biblical Hebrew language from a cognitive, typological and grammaticalization perspective. The school, with its distinctive approach, has been founded by prof. C. H. J. Van der Merwe and is represented by various of his students, such as for instance K. Lyle, J. Westbury and the author of the present article.

[10] According to Van der Merwe, Naudé and Kroeze (1999: 146), the precative *qatal* appears approximately 20 times in the Hebrew Bible. This constitutes 0,1 % of all cases.

[11] All relevant verbal forms (in Hebrew or other languages) as well as their translation are given here in bold type. Translations of biblical texts follow NRSV, with some modifications.

Answer me when I call, O God of my right! **Give me** relief from my distress. Be gracious to me, and hear my prayer

c. Ps 71:3

הֱיֵה לִי| לְצוּר מָעוֹן לָבוֹא תָּמִיד **צִוִּיתָ** לְהוֹשִׁיעֵנִי כִּי־סַלְעִי וּמְצוּדָתִי אָתָּה׃

Be my rock of refuge, to which I can always go; **command** to save me, for you are my rock and my fortress

d. Ps 3:8

קוּמָה יְהוָה| הוֹשִׁיעֵנִי אֱלֹהַי **כִּי־הִכִּיתָ** אֶת־כָּל־אֹיְבַי לֶחִי שִׁנֵּי רְשָׁעִים **שִׁבַּרְתָּ**

Arise, O LORD! Deliver me, O my God! **Strike** [for you **must strike**] all my enemies on the jaw; **break** the teeth of the wicked

e. Ps 7:7

קוּמָה יְהוָה| בְּאַפֶּךָ הִנָּשֵׂא בְּעַבְרוֹת צוֹרְרָי וְעוּרָה אֵלַי מִשְׁפָּט **צִוִּיתָ**

Arise, O LORD, in your anger; rise up against the rage of my enemies. Awake, my God; **decree** justice

Sometimes, the precative *qatal* is also headed by a deontic modal *yiqtol*:

(2) Ps 31:5–6

תּוֹצִיאֵנִי …בְּיָדְךָ אַפְקִיד רוּחִי **פָּדִיתָה** אוֹתִי יְהוָה אֵל אֱמֶת׃

Free me (you shall free me) . . . Into your hand I commit my spirit; **may you redeem** me! O Lord, faithful God

However, in some very sporadic and still controversial examples, the precative *qatal* is not immediately headed by any overt modal optative or deontic form. In these cases, the precative reading of the *qatal* forms is assumed because of the meaning of the whole situation. This use could be labeled an "independent" precative *qatal*.

In example (3.a), the interpretation of the *qatal* in a precative manner may be justified by the fact that the entire situation is an oration and/or imploration directed to God (see the overt "exclamatory" expression וְעַתָּה יְהוָה "O now, Lord" in 1 Chr 17:23, 26 and 27). It can also be supported by a modal sense of the *yiqtol* form and the imperative in 1 Chr 17:23 (יֵאָמֵן and וַעֲשֵׂה

respectively), and by the three cases where the lexeme עַתָּה is used in order to emphasize the present-ness of a desired event (see, 1 Chr 17:23, 24 and 27). An analogical interpretation may be offered in example (3.b) since the enunciator invokes God, explaining how he will repay the Lord for all his goodness. In this case, the precative *qatal* is accompanied by various *yiqtol* forms with a future value (e.g., אֶקְרָא and אֲשַׁלֵּם in Ps 116:12 and 13, respectively) and, just like in previously mentioned cases, it is introduced by an overt exclamation, i.e., וְעַתָּה יְהוָה "O now, Lord". Also, the situation in example (3.b) is an invocation or prayer to God which very naturally allows an understanding of the *qatal* as an optative. The precative interpretation may additionally be substantiated by the fact that the *qatal* form is preceded (although not immediately) by an imperative רְאֵה יְהוָה "See, O Lord!" in Lam 1:20, and that it is directly followed by a *yiqtol* with a modal future or even optative sense וְיִהְיוּ "so that they be/let them be."

(3) a. 1Chr 17:23–27

וְעַתָּה יְהוָה הַדָּבָר אֲשֶׁר דִּבַּרְתָּ עַל־עַבְדְּךָ וְעַל־בֵּיתוֹ יֵאָמֵן עַד־עוֹלָם וַעֲשֵׂה כַּאֲשֶׁר דִּבַּרְתָּ׃

And now, Lord, let the promise you have made concerning your servant and his house be established forever. Do as you promised,

וְיֵאָמֵן וְיִגְדַּל שִׁמְךָ עַד־עוֹלָם לֵאמֹר יְהוָה צְבָאוֹת אֱלֹהֵי יִשְׂרָאֵל אֱלֹהִים לְיִשְׂרָאֵל וּבֵית־דָּוִיד עַבְדְּךָ נָכוֹן לְפָנֶיךָ׃

so that it will be established and that your name will be great forever. Then men will say "The Lord Almighty, the God over Israel, is Israel's God!" And the house of your servant David will be established before you.

כִּי | אַתָּה אֱלֹהַי גָּלִיתָ אֶת־אֹזֶן עַבְדְּךָ לִבְנוֹת לוֹ בָּיִת עַל־כֵּן מָצָא עַבְדְּךָ לְהִתְפַּלֵּל לְפָנֶיךָ׃

You, my God, have revealed to your servant that you will build a house for him. So your servant has found courage to pray to you

וְעַתָּה יְהוָה אַתָּה־הוּא הָאֱלֹהִים וַתְּדַבֵּר עַל־עַבְדְּךָ הַטּוֹבָה הַזֹּאת׃

O Lord, you are God! You have promised these good things to your servant.

וְעַתָּה **הוֹאַלְתָּ** לְבָרֵךְ אֶת־בֵּית עַבְדֶּךָ

So now **may you agree** (**may you be willing**) to bless the house of your servant

b. Ps 116:16

אָנָּה יְהוָה כִּי־אֲנִי עַבְדֶּךָ אֲנִי־עַבְדְּךָ בֶּן־אֲמָתֶךָ **פִּתַּחְתָּ** לְמוֹסֵרָי׃

O Lord, I am your servant; I am your servant, the child of your serving girl. **May you lose** my bonds!

c. Lam 1:21

מְעוּ כִּי נֶאֱנָחָה אָנִי אֵין מְנַחֵם לִי כָּל־אֹיְבַי שָׁמְעוּ רָעָתִי שָׂשׂוּ כִּי אַתָּה עָשִׂיתָ **הֵבֵאתָ** יוֹם־קָרָאתָ וְיִהְיוּ כָמוֹנִי׃

They heard how I was groaning, with no one to comfort me. All my enemies heard of my trouble; they are glad that you have done it. **Bring on** / **may you bring** the day you have announced, and let them be as I am[12]

As is clearly indicated by all the examples quoted above, the precative *qatal* is typically directed to a second person singular, and usually to the person of God himself. However, and although this phenomenon is infrequent, it may also be occasionally addressed to a third person singular or plural. In such instances, which commonly occur when the 2nd person is involved, the form is headed by overt modal deontic formations, such as, e.g., a series of various deontic (jussive) *yiqtols* (e.g., יְחָנֵּנוּ [Ps 67:2], יוֹדוּךָ [Ps 67:4], יְשַׂמְּחוּ וִירַנְּנוּ [Ps 67:5] and יוֹדוּךָ [Ps 67:6] in 4.a, below), an imperative (e.g. הוֹצִיא [Isa 43:8] in 4.b) or a sequence combining both an imperative and a deontic *yiqtol* (e.g., תִּדְרוֹשׁ and שְׁבֹר [Ps 10:15] in 4.c). The 3rd person subject may be explicitly specified, for example by means of a noun.

(4) a. Ps 67:2–7

אֱלֹהִים יְחָנֵּנוּ וִיבָרְכֵנוּ יָאֵר פָּנָיו אִתָּנוּ סֶלָה׃

May God be gracious to us and bless us and make his face shine upon us

לָדַעַת בָּאָרֶץ דַּרְכֶּךָ בְּכָל־גּוֹיִם יְשׁוּעָתֶךָ׃

that your ways may be known on earth, your salvation among all nations.

יוֹדוּךָ עַמִּים| אֱלֹהִים יוֹדוּךָ עַמִּים כֻּלָּם׃

May the peoples praise you, O God; may all the peoples praise you.

[12] It can be observed that the precative *qatal* is followed by a *weqatal* in the same line, as well as by a *we-yiqtol* form with a final or jussive force, itself followed by a deontic *yiqtol* in the next verse (Lam 1:22).

יִשְׂמְחוּ וִירַנְּנוּ לְאֻמִּים כִּי־תִשְׁפֹּט עַמִּים מִישֹׁר וּלְאֻמִּים|
בָּאָרֶץ תַּנְחֵם סֶלָה׃

May the nations be glad and sing for joy, for you rule the peoples justly and guide the nations of the earth.

יוֹדוּךָ עַמִּים| אֱלֹהִים יוֹדוּךָ עַמִּים כֻּלָּם׃

May the peoples praise you, O God; may all the peoples praise you.

אֶרֶץ **נָתְנָה** יְבוּלָהּ יְבָרְכֵנוּ אֱלֹהִים אֱלֹהֵינוּ׃

May the earth **yield** her produce, and God, our God, will bless us.

b. Isa 43:8–9

הוֹצִיא עַם־עִוֵּר וְעֵינַיִם יֵשׁ וְחֵרְשִׁים וְאָזְנַיִם לָמוֹ׃

Lead out those who have eyes but are blind, who have ears but are deaf.

כָּל־הַגּוֹיִם **נִקְבְּצוּ** יַחְדָּו וְיֵאָסְפוּ לְאֻמִּים

All the nations **gather** together, and the peoples assemble

c. Ps 10:15–16

שְׁבֹר זְרוֹעַ רָשָׁע וָרָע תִּדְרוֹשׁ־רִשְׁעוֹ בַל־תִּמְצָא׃

Break the arm of the wicked and evil man; call him to account for his wickedness that would not be found out

יְהוָה מֶלֶךְ עוֹלָם וָעֶד **אָבְדוּ** גוֹיִם מֵאַרְצוֹ

The LORD is King for ever and ever; the nations **may perish** from his land

With respect to formal behavior, it should also be noted that in a majority of cases the *qatal* appears under a syntactic variety *x-qatal*. The heading entity may be a subject (as is seen in 4.a and 4.b), an object (1.d and 1.e) or a prepositional phrase (1.a and 1.b). Sometimes, the pre-posed unit is a particle (כִּי in 1.d) or an adverb (וְעַתָּה in 3.a). However, the "bare" *qatal* pattern may also be found (e.g., in 1.c, 2, 3.b and 4.c).[13]

[13] In addition to the examples presented in this section, which are regarded here as the most evident and convincing, some scholars also identify the following cases of precative *qatal*: Isa 26:15; Ps 10:16; 57:7; Job 21:16; 21:18; Lam 3:57–61 (*vide* Ewald 1855). Another possible instance is Mic 1:10 (Dempsey 1991: 212–4). Overall, as observed by Van der Merwe, Naudé and Kroeze (1999), the total number approximates

2.2. COMPARATIVE EVIDENCE

The use of the suffix conjugation in real factual optative or deontic functions (i.e., as an expression of wishes or commands) is not restricted to Biblical Hebrew; quite the opposite, it is widespread in Semitic languages. This fact has been widely recognized, and scholars agree that the optative use of the cognates of the BH *qatal* goes back to the origin of this formation, which was initially employed as a nominal predication (see the following section below). It may be found in the eastern branch (Akkadian), in various North-West idioms (Amarna Akkadian, Phoenician-Punic, Ugaritic, Syriac or Mandaic), in Arabic and Old Southern Arabian, as well as in Ethiopian languages (Ge'ez). Generally speaking, it is recognizable among virtually all members of the Semitic family (cf. Gai 2000).

The optative value of the Semitic suffix conjugation is extensively documented in Akkadian by a cognate construction of the BH *qatal*, viz. the *parsāku*. The *parsāku* is a prototypical resultative proper gram. As such, it expresses static situations acquired due to the activities that have been previously performed (Huehnergard 2005: 219–23 and Kienast 2001: 296). This "stationary" character may clearly be observed in cases where the formation is derived from adjectival roots, thus denoting current or permanent qualities. It is possible to argue that the Akkadian *parsāku* is a resultative formation which is significantly less advanced than its cognate expressions in other Semitic tongues, for it still mainly functions as a resultative proper or a stative.[14] Hence, in contrast with the BH *qatal* or the Arabic *qatala*, it did not reach the stage of a perfect, perfective or simple past category or usage.[15] Besides these typical

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more or less twenty cases that may be viewed as providing solid evidence.

[14] The advancement of original resultative proper formations follows the direction traced by a typologically universal rule (or general tendency) labeled the "resultative path." Its most common formative sub-cline, the so-called anterior path, states that resultative proper grams regularly develop into dynamic present perfects (inclusive, resultative, iterative, experiential and indefinite), and next into past tenses (first immediate, hodiernal, hesternal and recent, and then general and remote). During the transformation into a definite past tense, the gram may also acquire an overt aspectual marking, functioning as a perfective. Later, such perfective pasts transmute into simple (aspectually neutral) past tenses. For a far more detailed treatment of the anterior path and its relation to the resultative trajectory with all its sub-tracks, see Bybee, Perkins and Pagliuca (1994), Dahl (2000b), Cook (2002) and especially Andrason (2011a: 35–45) and (2011b: 10–16). The two remaining sub-tracks of the resultative path—i.e., the simultaneous and evidential clines—will be briefly discussed in section 3.1 below.

[15] However, it is already possible to identify uses where the gram provides more dynamic functions that are typical for other Semitic idioms, e.g., perfect (resultative passive perfect, resultative active perfect or inclusive resultative perfect). Moreover, the locution is exceptionally used as a substitute of the *iptaras* and *iprus* in narrative sections, approximating in

resultative uses, the Akkadian *parsāku* quite commonly introduces real factual wishes or commands, constituting a stative and, partially, verbless counterpart to the fientive injunctive pattern (the precative *liprus*). In such instances, the *parsāku* is regularly preceded by an optative particle *lū* and expresses positive wishes or orders—it is still possible for a desired or required activity to be performed, and this possibility is fully feasible (*vide* infra 5.a–b; Huehnergard 2005: 223). Furthermore, the gram may also be headed by a negative optative entity, viz. the particle *lā* or *ē*, thus introducing negative desires and commands (i.e., that something may not or will not occur) and corresponding to two fientive formations: the prohibitive (*lā iparras*) and the vetitive (*ayyiprus*) respectively (*vide* infra 5.c–e; Von Soden 1952: 106 and Huehnergard 2005: 146–7):

(5) a. lū **dannātunu**

Be strong/**May you be strong** (Huehnergard 2005: 223)

b. lū **ṭardū**

May they be on their way/**let them be on their way** (i.e., **be sent!**; ibid.)

c. kaspum lā **nadin**

The silver **may** not **be given**/the silver **must** not **be given** (ibid.)

d. lā **enšēta**

Do not **be weak**/you **may** not **be weak**/you **must** not **be weak** (ibid.)

e. **ē naš'āti**

Du **mögest** nicht **bringen** (Von Soden 1952: 107)

Also the suffix conjugation in Amarna Akkadian (besides functioning as a resultative, a stative and a perfect) may be employed with a real factual optative force.[16]

(6) **ma-at-ti** ma-gal / a-na ka-ta$_5$ ÌR-ka a-na-ku

I **would readily die** (**may I die**) for you, your servant am I (Rainey 1996: 364)

Similarly, Phoenician-Punic (7.a) and Ugaritic (7.b–d) languages document an optative usage of the suffix conjugation (*vide* "perfect of wishes" in Segert 1964: 90, "optative" in Gordon 1965:

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such instances a present perfect or an indefinite past (Loesov 2005: 133–4; for a detailed review of the values offered by the *parsāku*, see Andrason 2011a: 197).

[16] According to Rainey (1996: 366), this usage originated in strong affirmations, from where it expanded to injunctive functions.

115 and "Wunschperfect" in Kienast 2001: 313). Also, other North–West Semitic languages, such as Syriac (Ungnad 1932: 53), Mandaic (Nöldeke 1964 [1875]: 369) and the Aramaic of the Babylonian Talmud (Buttenwieser 1925: 65) maintain the *qatal* in expressions of real factual wishes or commands. For instance, in Syriac, the gram (especially the perfect of the verb *hwâ* with a following participle or adjective) may appear in optative clauses with the meaning of "may (you) be + adjective" (5.e; Nöldeke 1904: 206, 216 and Ungnad 1932: 53).

(7) a. **brk** B'l . . . 'jt PN
Es segne Ba'al den PN (Kienast 2001: 313)

b. **lyrt**
May you descend (Segert 1984: 90)

c. **ḥwt** 'aḫt (1.10 I,20)
May you live, my sister! (Gordon 1965: 115)

d. 'm 'lm **ḫyt** (1.4 IV,42)
May you live forever! (Sivan 2001: 98)

e. **hwyt** ḥlym
Farewell! (Nöldeke 1904: 205)

Arabic does not differ from this tendency, so that the suffix conjugation—besides being used as a prototypical present perfect, a stative, a perfective and a simple (even narrative) past formation (*vide* Wright 1964: 1–18, Danecki 1994: 153–4, Kienast 2001: 332 and Andrason 2011a: 213–23)—may likewise be employed with a real factual optative force. In such instances, the gram introduces present-future and entirely feasible wishes. Put differently, by using the *qatala* form—a cognate of the BH *qatal*—the speaker can convey a mild or strong wish that something may or shall occur. This usage is particularly common in supplications, oaths, prayers and curses (see examples 8.a–c; *vide* Wright 1964: 2–3, Danecki 1994: 154 and Kienast 2001: 332). Moreover, the formation appears in negative contexts, thus denoting negative wishes that refer to a real (i.e., present-future) situation, where the accomplishment of the wish is possible. In such cases, the gram is preceded by the particle *lā*[17] and introduces the desire that something may not or shall not occur (8.d):

(8) a. **رحمه** الله تعالى
May God (who is exalted above all) **have mercy** on him! (Wright 1964: 2)

b. **قا تل** الله المرض

[17] The "indicative" *qatala* is normally negated by means of the particle *mā*.

May God **overcome** the disease! (Danecki 1994: 154)

c. صلى الله عليه وسلم

May God **bless** him and **save** him! (Haywood and Nahmad 1965: 271)

d. لا **بارك** الله فيك (Danecki 1994: 154)

May God not **bless you**!

Finally, Old Southern Arabic and Ethiopian (*vide* Dillmann 1974 [1907]: 551) languages provide further evidence regarding the real factual optative sense of the suffix conjugation. For example, in Old Southern Arabic, the perfect is used as an optative form, which is then commonly headed by the particle *l* and expresses real and feasible wishes (Höfter 1943: 67–68):

(9) wl**ḫmr**hmw

Und **er möge** sie **beschenken** (ibid.: 68)

To conclude, we may affirm the following: comparative evidence overwhelmingly demonstrates that the Semitic suffix conjugation regularly contains in its semantic potential an optative or deontic real factual value. This is especially valid for positive wishes and commands, although the negative optative function has also been documented.

2.3. DIACHRONIC EVIDENCE

Once we have accounted for the precative use of the BH *qatal* and cognate forms in other Semitic languages, the following question arises: How is the real factual optative or deontic sense of the suffix conjugation related to its origin? Or, in other words, was this value integral to the original expression from which the *qatal* and its cognates have developed?

It is important to acknowledge that the Proto-Semitic input expression **qatal*-P (i.e., *qatal-* + a pronoun),[18] from which suffix conjugations emerged, was not inherently modal. Nor was it its participial or verbal adjectival source. The BH *qatal* and its Semitic homologues are successors of a resultative verbal adjective employed in a predicative function (Huehnergard 1987: 221–3, Andersen 2000: 31, Lambdin and Huehnergard 1998, Lipiński 2001: 336–7, 341, Cook 2002: 209–19 and Andrason 2011a).[19] In other words, the suffix conjugation traces its origin to a resultative proper gram

[18] The abbreviation P stands for "pronoun," used in the 1st and 2nd person singular, plural and dual.

[19] The resultative value of this original analytic resultative proper formation (viz. **qatal*-P) clearly derived—as is still documented by Akkadian—from the resultative-stative value of the verbal adjective or resultative participle itself (Huehnergard 1987: 223).

that was not an overt and explicit modal (e.g., optative or deontic) formation.

However, the gram—supposedly already in its very origin—could be employed in various modal contexts, especially in optative ones. In such cases, the optative value stems from contextual factors, i.e., from elements external to the locution itself. As is documented in Akkadian as well as in other Semitic languages, one of the most typical and productive contextual environments where the PS **qatal*-P could have acquired an optative value corresponds to cases where the expression appeared in the proximity of determined particles. These include the optative voluntative **lū/lau*[20] (Brockelmann 1961 [1913]: 30–31, 642, 645, Bauer and Leander 1992 [1922]: 74, 632, O'Leary 1969: 275–6, Gray 1971: 73 and Huehnergard 1983: 592), the precative, assertive, emphatic and exclamatory **la* (Brockelmann 1961 [1913]: 110, 181, Huehnergard 1983: 592 and Kienast 2001: 397), the prohibitive ?**'alā* (Akk. *lā*; *vide* Brockelmann 1961 [1913]: 182 Gray 1971: 73 and Kienast 2001: 398–9), or the vetitive **'aj/ē* (Akk. *ay/ē*; *vide* Kienast 2001: 399).[21] The gram also appeared in other modal environments overtly specified by modal lexemes or morphemes.[22] In certain cases, the proximity of voluntative or deontic verbal forms (i.e., imperative, prohibitive or injunctive forms) or the general pragmatic milieu itself (the context of a prayer, imploration or curse; see the Arabic example, above) could clarify that the enunciator desired to express an optative sense by employing the suffix conjugation. In all such cases, however, the optative value stemmed from external settings and was contextually induced. As a result, the real factual optative sense available in Biblical Hebrew and in other Semitic languages must have arisen under the influence of contextual factors, and thus constitutes a type of modal contamination of a non-modal Proto-Semitic input.

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[20] This usage with a real factual sense is documented in Akkadian. On the use of the suffix conjugation with successors of the particle *lu* in a counterfactual modal function, see Andrason (2013).

[21] Additionally, as indicated by Akkadian, Hebrew, Arabic and all Semitic idioms, the PS **qatal*-P could possibly be used in verbless conditional phrases with a hypothetical factual sense (see the use of the Akkadian *parsāku* with *šumma*; Von Soden 1956: 212–5).

[22] As documented by Akkadian examples, when accompanied by the word *pīqat* 'perhaps' the *parsāku* expresses weak doubts or optative nuances (Wasserman 2012: 18, 20–21, 32). With *wuddi* "certainly, really," it conveyed the idea of certainty and promissory (ibid.: 66–73, 74), and with *tuša*, it introduces counter-assertions and refuters (ibid.: 94, 102). Moreover, the counterfactual sense may be found in conditional sequences (both in protases with *šumma* and in apodoses) where the Akkadian formation is accompanied by the lexeme *man* (Wasserman 2012: 121–4).

2.4. TYPOLOGICAL EVIDENCE

Having hypothesized that the precative sense has been incorporated into the BH *qatal* (a successor of a PS resultative proper locution) because of its regular use in an overtly modal environment, two closely related questions may be posed. Can the transformation of an original resultative proper input (which is not overtly and explicitly marked for the feature of modality) be cognitively plausible and justifiable? And can morphologies that otherwise express resultative, perfect, perfective and past senses be used as (more or less stable) vehicles for a real factual optative and deontic value? In the present section, we will provide typological evidence showing that both queries may be answered affirmatively.

2.4.1. Moods from Indicatives

Firstly, it should be noted that although modal formations (grammatical moods) commonly derive from semantically transparent explicit agentive modal expressions of ability, obligation, desire and intention (Bybee, Perkins and Pagliuca 1994: 240), they may likewise originate in "old" indicative constructions. In other words, from a typological perspective, indicative or modally neutral inputs can perfectly develop into genuine moods. This typically occurs in relation with a constant use of such original indicatives in marked modal contexts. The process inducing the acquisition of modal properties or, in an extreme case, the transmutation of an indicative into genuine moods is referred to as a "modal contamination path" (Andrason 2011c: 6–8)—an instance of a process variously referred to as "conventionalization of implicature" (Dahl 1985: 11 and Bybee, Perkins and Pagliuca 1994: 25–26, 296), "context-induced reinterpretation" (Heine, Claudi and Hünnemeyer 1991: 71–72), and "semanticisation" (Hopper and Traugott 2003: 82). Let us explain this development in more detail.

At the beginning of this process, an original non-modal gram is employed in certain explicit modal contexts that are imposed by modal lexemes, syntactical patters or pragmatic factors. In such usages, the otherwise non-modal formation provides a given modal sense which is induced by determined contextual settings (stage 1; *vide* the English expression *Maybe he is sick*). Next, because of its systematic usage in a specific modal environment, the gram gradually assumes a modal—initially contextual—reading as its own, generalizing it to the degree that, in this precise milieu, only the modal interpretation is possible. This implies that temporal and aspectual senses usually become secondary, or are reinterpreted in purely modal terms (see the following paragraph below). This phase (stage 2) is illustrated by the use of the *imparfait* in French *si j'avais de l'argent* "If I had money," where the aspectual-temporal (imperfective past) reading is replaced by a counterfactual real hypothetical modal interpretation. Subsequently, the initially indicative form becomes entirely identified with a modal value generated

by its own environment, and consequently ceases to be employed in non-modal milieus and with a non-modal force (stage 3; *vide* the Spanish past subjunctive *hiciera* "[that] I might/could/would do," which derives from the Latin pluperfect indicative and which in Modern Spanish is usually employed as an explicit real counterfactual mood). During this phase, since other non-modal uses of the formation are no longer acceptable, the locution is reanalyzed as a genuine mood. Later, this "new" mood can become free from its explicit modal environments, and be transposed to other contexts, maintaining, however, the modal sense that has already been incorporated into the semantics of the gram (stage 4). This means that, for instance, a syntactically determined mood becomes acceptable in main clauses where, although it is not accompanied by overt modal lexemes or morphemes, it preserves the modal value acquired previously (Dahl 1985: 11, Hopper and Traugott 2003: 82 and Bybee, Perkins and Pagliuca 1994: 25–26, 235–6, 296).

In the course of the modalization of an original indicative—i.e., when evolving from stage 1 into stage 2—a change may be detected whereby the temporal and aspectual load of the underlying gram is modified for modal purposes. During this process, it is possible to observe that a) present indicatives quite regularly develop into or acquire a sense of real factual modality; b) dynamic present perfects transmute into real factual perfect modality; c) past tenses develop into counterfactual real modality; and d) pluperfects develop into counterfactual unreal modality (*vide* the modalization of the French present, imperfective past and pluperfect in conditional protases: *si tu viens* and *si tu es venu*—real factual; *si tu venais*—counterfactual real and *si tu étais venu*—counterfactual unreal). In an optative context of wishes, implorations or curses, the correspondence between the tense-aspect, on the one hand, and the mood, on the other, is analogical with the distinction that, this time, the concrete modal nuance is optative (*Fig.* 1 below).[23]

[23] At later stages of the development, this neat correspondence may be slightly disrupted due to analogical and other morphological processes (see, Bybee, Perkins and Pagliuca 1994: 230–40). For instance, in contemporary Spanish the original Latin pluperfect is used as a real counterfactual mood (*amara*) which matches a similar simple past form (*amó*), while the unreal counterfactuality is expressed by a new analytical formation (*hubiera amado*) which matches the new pluperfect *había amado*). This means in fact that the chart maintains its validity because the Spanish modal system was reshaped in accordance with the underlying indicative forms: the synthetic simple past (*pretérito*) is understood as the basis for the real counterfactual mood (*pretérito subjuntivo*), while the analytical pluperfect is perceived as the foundation of the unreal counterfactual mood.

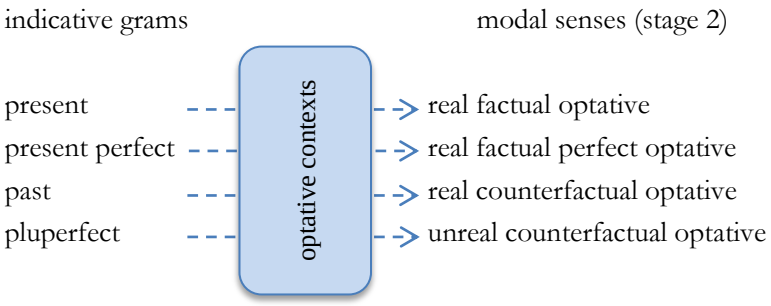

Figure 1: Optative modalization of indicative "tenses"

2.4.2. Split Resultative-Optative Morphologies

In keeping with the evolutionary tendency explained in section 2.4.1 above, in various languages resultatives—although failing to be originally modal expressions—develop certain modal functions or are transformed into genuine moods. This means that we encounter languages where the same morphology expresses both prototypical post-resultative senses (perfect, perfective and past) and modal values. Particularly relevant for this study are idioms which offer a functional "schizophrenia," whereby a typical perfect, perfective or past gram likewise functions as a real factual optative or deontic category. Typological studies teach us that such an indicative-post-resultative[24] and real-factual-optative split of a given morphological pattern is not rare and, thus, that the behavior of the BH *qatal* (and its Semitic homologues) is not unique. Quite the reverse is true, as the indicative-optative schizophrenia of post-resultative grams is a well-know and relatively common phenomenon. It may be documented by the Semitic form **yaqtul* (Akkadian *-iprus* or Arabic *yaqtul*), the Mandinka *YE* gram, the Classical (Middle) Egyptian perfective *sdm.f* and the Polish perfective past (*napisał*) and impersonal past (*napisano*).

The Akkadian morphological pattern *-iprus*—an advanced resultative diachrony (Andrason 2010b: 339–40 and 2011b: 36–37) that typically conveys the sense of a perfect, perfective and past (12.a)—may also be encountered in various modal formations. Namely, under the shape of the *l-iprus* ("precative"; Huehnergard 2005: 146–7), it expresses jussive, cohortative and desiderative values. Doing so, it constitutes a suppletive imperative form of the first and third persons, as it is able to introduce real factual orders and desires (12.b). The inflectional pattern *iprus* may also appear under the form of the *ayy-iprus* ("vetitive," ibid.). In this case, it introduces negative desires and mild prohibitions—again, real and

[24] Post-resultative senses or grams make reference to values that are located on the resultative path or to formations that develop following this evolutionary scenario. In harmony with the resultative cline, grams that are defined as post-resultative constructions or that are said to provide post-resultative senses typically originate in resultative inputs.

factual (12.c). It should be emphasized that both the *liprus* and *ayyiprus*—functioning as fully synthetic grams—derive from old analytical periphrases built on the verbal slot *iprus* and an originally independent modal particle (Huehnergard 1983, Testen 1998 and Kienast 2001). However, their modal values—originally induced by the context, viz. optative-prohibitive particles—were inseparable from the grams themselves in the Akkadian language. Likewise, the simple or "bare" *iprus* (which is, as has already been mentioned, a prototypical perfect, perfective and past) may sometimes be encountered with modal particles expressing unmistakably modal nuances. In particular, the *iprus* form of the verbs *edûm* and *išûm* is regularly used with the optative particle *lū* in order to provide the real factual deontic (imperative and optative) sense (12.d; Huehnergard 2005: 282). Also, in marked conditional protases with *šumma* "if" occurring in contexts where the apodosis is left unexpressed, the gram conveys an optative value.

(12) a. Erīb-Sîn u Nūr-Šamaš tappûtam **īpušū**-ma ana bīt Šamaš **īrubū**-ma ṭēmšunu **īpušū**-ma kaspam bābtam amtam u wardam ša ḫarrānim u libbi ālim mitḫāriš **izūzū**

Erib-Sin and Nur-Shamash **entered** into a partnership; they **entered** the Shamash temple and **carried** out their intention: they **divided** equally the silver, outstanding goods, (and) female and male slaves of (both) business trip(s) and within the city (Huehnergard 2005: 119)

b. ^{d}UTU ù ^{d}AMAR.UTU da-ri-iš u_4-mi **li-ba-al-li-ṭú**-ka lu ša-al-ma-ta lu ba-al-ṭa-ta g

May Šamaš and Marduk **preserve** you forever, may you be well, may you be living (Testen 1998: 119)

c. ayy**iprus**

May he not **separate**! (Lipiński 2001: 525)

d. lu **ti-di** lu **ti-di** aštap-ra-kum

Do know (it)! **Do know** (it)! I have written to you! (Sallaberger 1999: 147)

In a similar vein, the Arabic *yaqtul*—a cognate of Akkadian *iprus*—regularly appears in typical perfect-perfective-past functions if it is accompanied by the lexemes *lam* and *lammā* (13.a; *vide* Wright 1964: 41, Haywood and Nahmad 1965: 129, Bahloul 2008: 45). On the other hand, the identical morphological pattern is recurrently used to convey modal senses, both deontic and hypothetical-

conditional. Namely, the modal *yaqtul* is extensively employed as a real factual deontic formation: as a cohortative, when addressed to the first person (13.b), and as a jussive when directed to the third person. Thus, it is employed as a suppletive paradigm of the imperative in persons which do not have their proper imperative forms. It should also be noted that in such instances, the *yaqtul* is often headed by an overt modal lexeme, e.g., the particle *l* ل or, if there is a tight connection with the preceding sentence, *fal* فل (Haywood and Nahmad 1965: 129). Finally, the *yaqtul* is extensively used with a prohibitive force. That is to say, when preceded by the particle *lā* لا, it regularly introduces negative (real factual) orders (13.c).

(13) a. **لم يكتب**

He **did** not **write** (Haywood and Nahmad 1965: 129)

b. **اذهب** للسوق

Let me go to the market! (Haywood and Nahmad 1965: 128)

c. **لا تكتب**

¡**Do** not **write**!

Another instructive example of the schizophrenic nature of perfects, perfectives and pasts is provided by the Mandinka language.[25] In Mandinka, the so-called *YE* gram most commonly functions as a present perfect or definite past tense (either perfective or aspectually neutral; for details, see Andrason 2012b). However, besides these typical indicative post-resultative values, the formation is extensively employed in various modal functions. The real factual usage is one the most prominent ones. In complete agreement with the situation observed in Akkadian and Arabic, the *YE* gram constitutes a suppletive or alternative form of the imperative. For instance, the *YE* construction may approximate a cohortative when a command is directed to the first person singular or plural (14.b). If an order or an advice is given to the third person, the construction functions as a jussive (14.b). Finally, when it is addressed to the second person—most commonly following a proper imperative construction or an optative future—the gram functions as an imperative (14.d). Moreover, in various cases the YE formation introduces real factual wishes instead of orders, approximating an optative mood rather than more deontic categories of imperative, cohortative and jussive. In those cases, the locu-

[25] Mandinka is one of the languages spoken in Gambia, Senegal and Guinea Bissau. As the Bambara and the Malinké, it is a regional variety of the Manding—a cluster of mutually intelligible dialects employed in Western Africa. Manding itself is a member of the Western branch of the Mande family, which constitutes a sub-group of the Niger-Congo realm (Wilson 2000: 109 and Lewis 2009).

tion expresses desires or hopes as for the present-future situation (14.e-f).

(14) a. Seruŋ ate **ye** kewo **faa**
last.year he YE man kill[26]
Last year, he **killed** a man

b. **Ɲa** **duŋ** suwo kono!
I-YE enter house in
Let me enter the house

c. A **ye** **naa**!
he YE come
Let him come!

d. Wuli, i **ye** **taa**!
stand.up you YE go
Stand up and **go**!

e. A **ye** **faa**!
he YE be.dead
May he die / May he be dead

f. A **ye** **bambaŋ**!
he YE be.strong
May he be strong!

Similarly, Classical (Middle) Egyptian includes in its verbal system a gram that shows an indicative (perfect-perfective-past) *vs.* optative (real and factual) schizophrenic behavior. In Middle Egyptian, one of the central verbal grams is the form *sḏm.f*. There are two subtypes of this formation: one that is imperfective or durative, and another which is perfective or punctual (Buck 1952: 66–74). In positive sentences, the perfective *sḏm.f* is sometimes employed as a narrative past tense, although the *sḏm.n.f* is significantly more common. In negative phrases under the form of *n(n) sḏm.f*, the perfective constitutes a regular and frequent counterpart of the affirmative perfect and narrative past tense *sḏm.n.f* (15.a–b; *vide* Buck 1952: 71–74). However, despite this indicative perfect, perfective or past prototypicality, the locution is also extensively used in order to introduce real factual wishes or commands, functioning as a present optative (see example 15.c; ibid.: 71–72).

[26] Since Mandinka is not a Semitic language, all Mandinka examples will be glossed here. Likewise, the Egyptian and Polish sentences will be accompanied by glosses.

(15) a. **ḫsi** w(i) ḥm.f ḥr.ś
praised me majesty.his for.that
His Majesty **praised** me for that (Buck 1952: 71)

b. n **iw** sp.i
not came error.my
"Une faute de moi n'**a** pas **apparu**" (ibid.: 74)

c. **ini.t.k** n.i św
bring.you to.me it
May you bring it to me (ibid.)

The phenomenon of schizophrenic morphologies which display modal (optative and/or deontic) functions alongside regular uses as indicatives (perfects, perfectives and pasts) may also be encountered in Indo-European languages, such as, for example, Polish. Polish possesses a gram ("*l*-past" *napisał* "he has written/he wrote") that typically functions as a present perfect and definite perfective past. It is a narrative past tense *par excellence* (16.a). However, the same construction may also be used with a deontic force introducing firm real factual commands (16.b).[27] In Polish there exists another exemplary perfect vel. perfective past formation: the impersonal past in *-no/to*, e.g., *napisano* "one has written/wrote" (16.d). Once again, this gram, despite its perfect, perfective and past prototypicality, may be employed as a vehicle of strong orders that are fully feasible and refer to a present or future state of affairs (16.e–f):

(16) a. Cezar **podbił** Galię w 58 p.n.e.
Cesear **conquered** Gaul in 58 BCE
Caesar conquered Gaul in 58 BCE

b. **Poszedł** stąd!
went from.here
Go away from here!

c. **Przyszedł** mi tu teraz!
came for.me here now
Come here now!

d. **Zamordowano** go w 1945
one.killed him in 1945

[27] Some of these expressions are extensively used in the standard language, whereas others seem to be a colloquial phenomenon, e.g., *Napisał mi ten list*! "Write (lit. wrote) this letter!"

	He **was murdered** in 1945				
e.	**Napisano**	mi	to	teraz!	
	one.write	for.me	this	now	
	Write it now!				
f.	**Zrobiono**	mi	to	przed	5!
	one.did	for.me	this	by	5
	Do it by 5 pm!				

3. CONCLUSION

3.1. CHAINING THE PRECATIVE QATAL *AND ITS PLACE IN THE NETWORK*

In the previous section, the most emblematic examples of the precative usage offered by a typically indicative present-perfect-past BH gram *qatal* (section 2.1) have been presented. It has also been shown that the real factual optative function of the suffix conjugation is well-established in the Semitic family (section 2.2), and that it must have emerged from a constant use of an original resultative non-modal gram in overtly optative environments (section 2.3). Next, we have demonstrated that such a "double-face" behavior of some perfects, perfectives and past is typologically common and stems from a cognitively plausible scenario, whereby certain resultative inputs acquire a modal (e.g., real factual) character due to their modal contamination (section 2.4). A gathering of all this evidence may now be employed in order to propose a map networking the precative and indicative (especially perfect-perfective-past) senses of the BH suffix *qatal*.

Before mapping the precative *qatal* itself to the indicative core of the gram, the dynamic representation of the non-modal uses of the suffix conjugation must be explained. As demonstrated by Andrason (2011a: 281, 305–7, 2012a: 38–41, and partly by Cook 2002), the indicative potential of the gram may be grasped in its integrity and viewed as a homogeneous and harmonious whole if one applies the chaining procedure based upon the resultative path and its three formative sub-clines. More specifically, present perfect (inclusive, performative, resultative, iterative and experiential) values, indefinite and definite past values, as well as perfective and simple past values cover stages that are located on the anterior path. Thus, the most prototypical PPP senses of the *qatal* have been defined as a portion of the anterior path, spanning from the inclusive perfect to the discursive past tense (*vide* Andrason 2011a: 281, as well as Van der Merwe and Naudé forthcoming). Other values offered by the BH suffix conjugation are viewed as manifestations of two remaining sub-clines of the resultative trajectory. Namely, resultative-stative, stative and present values have been

networked by means of the simultaneous path (*vide* Andrason 2011a: 282–3, 305–7), whereas exceptional cases, where the *qatal* provides an evidential sense, have been elucidated as expressions of the evidential path (*vide* Andrason 2010c: 623–4 and 2011a: 282; on the evidential path see Aikhenvald 2004 and Andrason 2010c: 604–9).

Now, employing the chaining matrix that copies the modal contamination path of resultative inputs, it can be posited that the precative *qatal* corresponds to the second stage of this evolutionary scenario where an original indicative (or, in this case, resultative) gram is fully modalized in an overtly modal context. This means that in an explicitly modal environment, temporal and aspectual readings of the formation—which otherwise follows the resultative path, acquiring consecutive stages on the anterior, simultaneous and evidential clines—are reorganized in light of this modal context. As is consistent with the universal tendency, and as has previously been documented by Akkadian data, the present resultative proper use of the PS **qatal*-P (the most prominent in the discourse and in the cognitive-temporal sphere of the enunciator) in modal contexts of prayers, wishes, invocations and curses has been transmuted into a real factual optative or deontic category. Since in most cases, the BH precative *qatal* is headed by overt modal deontic forms (i.e., by an imperative and/or modal *yiqtol*), it is clear that the gram—although fully identified with its modal milieu—has not yet reached the subsequent phase where it could entirely be freed from its modal settings. On the other hand, given that one may find infrequent instances where the formation seems to express wishes or orders without being accompanied by overt deontic or optative forms, it is possible to hypothesize that the development toward the stage of emancipation may already have begun. Furthermore, since there are no traces of morphological differentiation between the indicative *qatal* and its precative—or more generally modal—variety, the precative *qatal* cannot be viewed as an independent gram. Quite the contrary, the two classes—the indicative and the modal—still jointly form the semantic potential of the category. No split—as for instance in Akkadian (*iprus* vs. *liprus* or *ayyiprus*) or partially in Arabic (*lam(mā) yaqtul* vs. *yaqtul*)—can definitely be posited. Accordingly, the entire semantic map of the *qatal* (where the real factual subtype is networked to the indicative counterpart and especially to the dominant perfect-perfective-past variety) may schematically be presented as follows (*Fig.* 2 below):

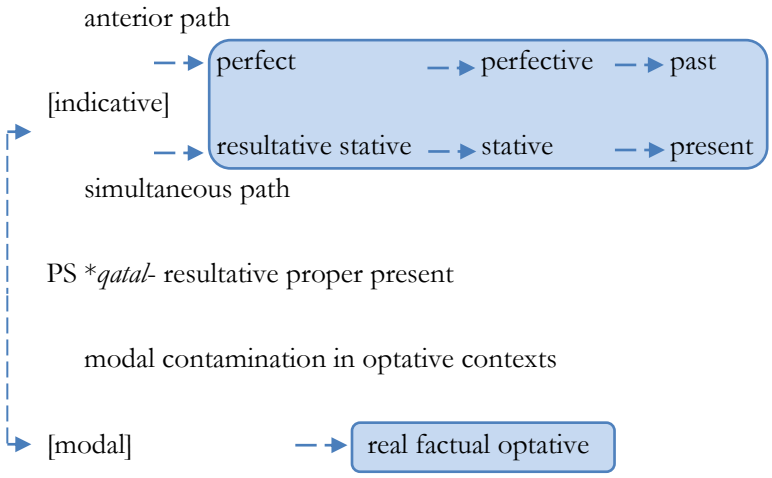

***Figure 2: The network of the BH* qatal*: optative* vs. *perfect-perfective-past senses*[28]**

The results of this study do not only explain the precative *qatal*, linking it to the dominant PPP domain without any type of derivation from an allegedly inherent invariant value; they also make its position in Biblical Hebrew significantly firmer and more credible. Since the precative value stands in a cognitive harmony with the indicative senses of the *qatal* (it is chained by means of a typologycally plausible matrix viz. the modal contamination path of resultative inputs); since such an indicative-modal split of the suffix conjugation is encountered in various Semitic idioms; and since schizophrenic indicative (perfect, perfective, past) and modal (real factual optative) morphological patterns typologically constitute a well-documented phenomenon, the reading of certain *qatal* forms in contexts of wishes, prayers or supplications becomes all the more plausible. Cognitively, diachronically, comparatively and typologically, such forms make, therefore, perfect sense. Conversely, the "anti-precative" position appears to be problematic and more difficult to sustain.

3.2. A MODELLING OF THE PRECATIVE QATAL *AS AN ILLUSTRATION OF THE ANTI-STRUCTURALIST COMPLEXITY MODEL IN VERBAL SEMANTICS*

The result of the present study may also be viewed as exemplifying the "anti-structuralist" and complexity approach to the semantic analysis of verbal systems, in particular of Biblical Hebrew. As explained in section 1.3, our approach explores the idea according

[28] In this chart, the networking of stative and evidential values as well as the chaining of prospective senses has deliberately not been taken into consideration. For a discussion of these features and their incorporation into the semantics of the *qatal* gram, see Andrason 2011a: 282–3, 305–7, 2011d: 41–43 and forthcoming).

to which the meaning of a verbal form is understood as a modeled (i.e., organized into a map) aggregate of contextually induced senses. This point is characteristic of various post- or anti-structuralist theories, such as the panchronic model of grammaticalization chains (Heine, Claudi and Hünnemeyer 1991, as well as Dahl 2000b), cognitive semantics (Evans and Green 2006 and Van der Auwera and Gast 2011), construction grammar (cf. Hopper 1998 and Helasvuo 2009), emergent grammar (cf. Kay and Filmore 1999, Croft 2001 and Nikiforidou 2009), or usage-based and path approaches (Bybee 2010). The model employed in this article is entirely compatible with and, in effect, derived from the above-mentioned approaches. By doing so, it continues a "militant" anti-structuralist spirit which emerged in the 1980's, and which openly rejects an anachronistic hypothesis of invariant/inherent meanings (cf. Bybee 2010: 183–93). On the other hand, however, our approach goes beyond the above-mentioned frameworks, in that it relates additionally the cognitive, grammaticalization and typological "tradition" with another revolutionary trend in science, namely, the complexity theory. To be exact, it demonstrates that the verbal system of Biblical Hebrew constitutes a complex, open, dynamic, metastable, non-linear and emergent[29] body which should be modeled by using a thermodynamic representation (Andrason 2012d). By emphasizing the importance of complexity, openness, dynamics, metastability, non-linearity and emergence in the functioning of the BH verbal system (and hence in its description and analysis), our model again straightforwardly contradicts the structuralist, Jakobsonian ideal of a static system comprising a limited amount of neat and clear-cut oppositions. The infinite complexity and time-dependence of realistic systems in our universe (regularly acknowledged in modern science), with all of their implications for real-world organizations, directly contradicts such idealized systems. Certainly, every model and every scientific description of the universe—the complex and thermodynamic one included—represents by necessity a simplification of the actual state of affairs (Futuyma 1998: 128). Nevertheless, what distinguishes all structuralist models is the fact that they simplify to a dangerous limit. They typically falsify reality—this falsification may best be observed in the manner they ignore or minimalize empirical evidence. In order to fit the form into a given label, structuralist scholars typically adopt two

[29] Complex systems involve an immense or infinite number of components and relations; open systems exchange material, energy or information with their environment; dynamic systems undergo a constant evolution; metastable systems appear as static and are usually viewed as "things" although they are processes; non-linear systems suffer important macroscopic modifications due to insignificant microscopic alterations; emergent properties fail to be qualitatively comparable with, and "additively" derivable from, the characteristics of more elemental constituents. For a detailed discussion of these properties, as well as of the thermodynamic model of the BH verbal system, see Andrason (2012d).

positions: either they ignore a portion of the empirical data (i.e., they focus on the data that corroborate their categorization), or they minimalize the importance of instances which contradict a proposed definition, regarding such cases as irregular (cf. Heine, Claudi and Hünnemeyer 1991, Tyler and Evans 2003: 6–7, Bybee 2010: 183–9). Let us explain this point by discussing again the model of the BH *qatal* form.

The BH *qatal*—a taxonomical specimen discussed in the present article—appears in the biblical material in a large variety of contexts, where different semantic content are activated and profiled. Accordingly, in determined semantic, syntactic or pragmatic environments, the *qatal* offers distinct senses compatible with the following semantic domains or semantic categories: present perfect (≈ 21%), pluperfect (≈ 21%), future (either perfect or simple ≈ 2%), indefinite perfect/past (≈ 11%), definite past ≈ 35% (either perfective [≈ 28%] or durative [≈ 7%]), gnomicity (≈ 0,5%), present (resultative, stative or simple ≈ 6%), and performative (≈ 2%). Additionally, it may express a modal sense of unreal counterfactuality (in conditional protases and apodoses, as well as in wishes ≈ 1%; cf. Andrason 2013) and a value of real factuality (≈ 0,5%,), as demonstrated in this article.[30] This is a total semantic potential of the BH *qatal* form—a scientific fact derived from empirical observations where each occurrence of the *qatal* form (limited to a finite corpus) has been "measured" with objective "tools": in each usage, the exact sense was determined by means of the presence of certain explicit indicators, such as accompanying lexemes and particles, overt syntactic constructions, discourse types, and pragmatic factors—in total, the context. This empirical and objective study of the semantic properties of the *qatal* delivers a semantic space covered by this formation—its semantic potential or semantic compatibility.

This empirical evidence—which constitutes the foundation of our model and, especially, of the corresponding mapping advanced—enables us to clearly demonstrate the weakness of any structuralist model. In light of the empirical research, it is evident that no relevant semantic domain is shared in all the uses of the *qatal* gram. The only domains which can be posited as being effectively shared correspond to values that are epistemologically unimportant and trivial (cf. also Bybee 2010: 183–93). As a result, such shared domains are unavoidably imprecise and irrelevant. The 1,5% of cases where the *qatal* has an evident modal (factual or counterfactual) force contradicts its classification as an indicative "*realis*" form. The usages of the *qatal* as a past durative, present stative and

[30] These figures reflect provisional results obtained by the current research of the author, which consists in "measuring" the senses offered by *qatal*, long *yiqtol*, short *yiqtol*, *wayyiqtol* and *weqatal* in five books of the Hebrew Bible. The quoted percentages correspond to the data obtained in the analysis of Genesis.

simple present, as well as the instances where it takes the value of an inclusive perfect and performative (in total approximately 18%), invalidate the definition of this construction as a perfective aspect. Likewise, the instances where it functions as a present or a future undermine the classification of the *qatal* as a past tense. Finally, various non-perfectal usages (i.e., the senses where the idea of anteriority is not evident) nullify the soundness of the definition of the gram as a perfect. To sum up, all one-domain labels are insufficient if one intends to grasp the entire semantic diversity of the *qatal*—its semantic potential as evinced by empirical studies. All such one-dimensional classifications are artificial constructs, which directly falsify, and collide with, the empirical evidence that is available.

Our approach, on the contrary, has by definition no problem with empirical data, even in their most chaotic and superficially haphazard shape. Our model *per vim* tolerates all types of synchronic diversity: it respects and incorporates the entire empirical evidence—no examples need to be relegated and viewed as "irregular." In other words, while "flat" one-domain definitions are unsustainable because they are contradicted by too many empirical cases, our representation directly presupposes that a form has multiple, diverse, and even incompatible senses. In fact, the more distinct senses we can identify, the better it is. This stems from the following fact: since the map is posited by using typological evolutionary templates or paths, whose segments reflect different historical stages, wherever a certain extension of meaning has taken place, the structure of such a map is more easily recognizable—and more plausible—if more senses of this form can be matched with stages that are typical for a cline. As a result, the extent and diversity of a given semantic potential ceases to be problematic at all—the problem in analyzing and explaining the semantics of a form now consists in providing the rationale behind a proposed chaining, and thus the posited organization of the corresponding map.

As already mentioned, the entire semantic potential of the *qatal* form may be ordered by, and classified as, portions of the following evolutionary templates. (Of course, although the mapping is first derived from synchronic evidence and certain typological universals, it has also been contrasted with, and corroborated by, direct diachronic evidence.) First, all the indicative senses can be connected by means of the resultative path, and in particular of its two formative sub-trajectories: anterior (present perfect > indefinite perfect/past > definite past [first perfective, and next durative]) and simultaneous clines (resultative present > stative present > simple present). All the future senses (future perfect > immediate and general future, and future of certainty), the pluperfect senses, as well as the senses of a resultative-stative past, stative past and (in the case of static roots) durative past, can be mapped by means of the same dynamic patterns, but located in a future and a past time frame respectively (cf. Andrason 2011a and 2012a). Additionally, the counterfactual senses can be linked to the resulta-

tive path by means of a modal contamination path concomitant with the anterior path (i.e., applied to the stages of a past and pluperfect), and next by the optative path (cf. Andrason 2013). Finally, as was demonstrated in this article, the real factual modal senses can be related by means of the modal contamination path applied to resultative and present perfect values. As a result, the entire semantic potential is modeled as a consistent, logical and fully plausible map. This map accounts for the entire semantic diversity of the *qatal*. In addition to its evident explanatory power, such map also shows an important predictive capacity.

Furthermore, it is no less important to note that, because of a difference in the frequency of determined senses, certain portions of each path are more prominent while others are less noticeable. This statistical prominence can be rendered in the model of the *qatal* by additionally "inflating" the stages of a present perfect, indefinite perfect, perfective past and pluperfect which correspond to the most common values. In this manner, the representation of the path incorporates not only the qualitative results of empirical studies, but also its quantitative ones (cf. Gries 2006: 5–6). The empirical frequency and, once modeled, the prominence of certain portions of the cline(s) deliver, in turn, what is defined in cognitive-corpus studies as cognitive "prototypicality." These are the senses that are the most easily associated with the form, and thereby viewed as context-free (Geeraerts 1988: 221–2, Stubb 2004 and Gilquin 2006: 180).[31] Consequently, the model of the verbal meaning of the *qatal* equals the total semantic potential of this form, ordered into a solid map—typologically plausible and diachronically corroborated—where some regions, due to their frequent availability, are more prominent.

Although our approach emphasizes the importance of context in the determination of a sense of the *qatal* form, the *qatal*—and any construction in general—should not be thought as a semantic vacuum uniquely depending on, and entirely shaped by, its environment. To be exact, in the same manner as the context influences the *qatal*, so does the *qatal* influence its context. In texts, and in language in general, everything is connected to everything; everything interacts with everything, at all levels and across all levels. The complexity of these connections and interrelations is humongous. Thus, as the *qatal* appears in a specific place in the Hebrew Bible, it is influenced by all possible contextual factors and, at the same time, influences all such elements, which, in turn, influence it back again, and so on recursively *ad infinitum*. It is at this point that complexity and, in a way, infinite circularity again becomes prominent for modeling the meaning of a verbal form. As explained above, the meaning of a form equals an ordered summa-

[31] Thus, the frequency of a sense has an important impact on the model and also on the perception of a form for speakers and for readers/students.

tion of all contextual senses conveyed by the form. But all these contextual specific senses are in fact applications of the previously ordered semantic potential to a concrete environment.[32] In other words, path-ordered semantic potentials of all the forms intermingle and cooperate in delivering the concrete atomic sense of each one of them. Thus, the meaning of a form as such (i.e., when it is envisaged in its totality) is an endless back-and-forth from the context (a given contextual sense) to the meaning (the ordered semantic potential), and back to the sense (since the semantic potential influences the contexts). And there is no exact starting point of this mutual interrelation—neither the verbal meaning nor the context comes first. Both are just given in the first place and have a mutual impact on each other.

To conclude, our model represents the verbal meaning and the semantics of verbal systems as a phenomenon that is simultaneously dynamic and meta-stable (a synchronic state of a form is portrayed by making use of evolutionary principles, where time "organizes" available senses); multi-dimensional (with micro- and macroscopic levels and "zooming" descriptions);[33] emergent (for example, the time sensitivity and dynamics are emergent properties which can only be perceived at the macroscopic level, where all concrete atomic cases have been aggregated); and, finally, open and complex (the number of oppositions and relations underlying the system is infinite).[34] By doing so, our model is more adequate with the realistic universe and properties of real-world systems. In particular, it represents the BH verbal semantics with a lesser degree of approximation, and thus with more precision, than any possible structuralist description; it respects the empirical evidence, and acknowledges the inherent complexity of the reality studied.

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[32] This new usage may subsequently modify this semantic potential, and thus expand the entire map of the meaning.

[33] On the one hand, a path (i.e., a dynamic definition of a gram) may be deconstructed into more specific sub-tracts and, on the other, a stage (a section of the path which symbolizes a sense of a gram) may be divided into more elementary stages (and thus senses) providing a gradually more atomic view of the meaning. Simply put, the model enables us to "zoom in" on the meaning of a form to the point that a stage-sense equals a single use of this form. Conversely, it also allows us to "zoom out," and therefore to provide macroscopic global descriptions.

[34] Additionally, as an exemplary complexity model, our representation is both analytic-microscopic and synthetic-macroscopic, giving access to various levels of description of the system. Finally, by developing a micro- and macroscopic explanation, it shows how all such levels incessantly influence each other and collaborate in delivering the system with its individuals.

3.3. A "BY-PRODUCT" OF THIS ARTICLE

Besides having explained the precative sense of the *qatal* and its cognitive relation to the remaining semantic potential of the gram, the present study offers an additional result. Based upon a typological tendency whereby indicative resultative proper inputs may acquire a real factual optative sense—thus giving rise to schizophrenic morphological patters that can function as an indicative perfect, perfective and past on the one hand, and as a real factual mood on the other—the present article provides further evidence for such an evolutionary possibility. By doing so, it supports a similar dynamic interpretation posited for the PS **yaqtul* and its two BH successors: the *wayyiqtol* and the short *yiqtol* (Andrason 2011b: 44–46, and especially 2012c; see also section 2.4.2 above and the discussion of Akkadian *iprus* and Arabic *yaqtul*).

In a recent study Andrason (2012c) proposed that—despite our lack of direct historical evidence—a case can be made for the view that the short *yiqtol* should be dynamically defined as an advanced portion of the modal contamination path of the original resultative input. More specifically, while the indicative PS **yaqtul*—in the shape of an analytical expression **wa*-+?+*yaqtul* that was fused in BH to the *wayyiqtol*—developed regularly following the resultative cline (anterior and simultaneous clines), the "simple" **yaqtul* was specialized as a modal gram, assuming the value that was imposed by certain modal environments in which it was employed. This means that the simple **yaqtul* was entirely modalized: namely, the modal sense became an indissoluble semantic property of the gram, and the formation lost any resultative-path senses and connotations. Thus, the simple **yaqtul*, which emerged from modal environments, separated itself—both semantically and morphologically—from the resultative input and its path. As the short *yiqtol*, it became an independent formation, while the successor of the indicative resultative input, having incorporated other markers, clearly developed into the *wayyiqtol*. Consequently, the trajectories of the two types of **yiqtol*, the indicative and modal, split into two independent grams: the resultative-path *wayyiqtol* (which, cognitively, is directly consistent with the input expression), and the modally contaminated short *yiqtol* (which is cognitively consistent with the environment in which the resultative source was employed). The relation between the precative *qatal* (real factual optative) and the indicative *qatal* (perfect, perfective and past) constitutes a completely analogical process from the typological perfective.

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