Event quantification in Hungarian. A comparative analysis of \textit{ki-ki} and \textit{mindenki}

Research question
The paper investigates the Hungarian universal distributive pronoun \textit{ki-ki} (literally 'who-who') compared to \textit{mindenki} (everyone). I argue that as opposed to \textit{mindenki}, \textit{ki-ki} inherently quantifies over events rather than individuals and that is why the distributional pattern and syntactic behaviour of the two items is different.

Facts
When it comes to their semantics they are both distributive universal quantifiers, however the use of \textit{ki-ki} is somewhat more restricted than that of \textit{mindenki}. While \textit{ki-ki} can be replaced by \textit{mindenki} all of the time, it is not always possible the other way round:

(1a) $\text{Ki-ki / Mindenki a maga szerencséjének a kovácsa.}$

\textit{ki-ki / everyone the own fortune.DAT the smith.POSS}

'Everyone is the smith of his own fortune.'

(1b) $\ast \text{Ki-ki / Mindenki elégedett az új igazgatóval.}$

\textit{ki-ki / everyone satisfied the new headmaster.with}

'Everyone is satisfied with the new headmaster.'

Whether the presence of \textit{ki-ki} is allowed in the sentence is greatly dependent on the event type of the verb. It can be used with accomplishments (2) and achievements (3, though the latter is slightly more marked), but it cannot be used (without any support elements) with activities (4) and states (5):

(2) $\text{Ki-ki elolvasott egy könyvet.}$

\textit{ki-ki PRT.read.PAST.Sg3 a book.ACC}

'Everyone read a book.'

(3) $\ast \text{Ki-ki megérkezett.}$

\textit{ki-ki PRT.arrive.PAST.Sg3}

'Everyone arrived.'

(4) $\ast \text{Ki-ki beszélgetett.}$

\textit{ki-ki chat.PAST.Sg3}

'Everyone was having a chat.'

(5) $\ast \text{Ki-ki szereti Jánost.}$

\textit{ki-ki like.Sg3 John.ACC}

'Everyone likes John.'

Taking a look at the corpus data, we can observe that in most cases \textit{ki-ki} co-occurs with a clause-mate anaphoric 3rd person pronoun. The presence of this pronoun can make the previous marked or even ungrammatical sentences fully grammatical:

(3’) $\text{Ki-ki megérkezett a maga házába.}$

\textit{ki-ki PRT.arrive.PAST.Sg3 the own house.in}

'Everyone arrived at his own house.'

(4’) $\text{Ki-ki beszélgetett a hozzá legközelebb ülővel.}$

\textit{ki-ki chat.PAST.Sg3 the pro.to closest sitting.with}

'Everyone was having a chat with the one sitting the closest to him.'

(5’) $\text{Ki-ki szereti Jánost a maga módján.}$

\textit{ki-ki like.Sg3 John.ACC the own manner.on}

'Everyone likes John in his own way.'
This pronoun is bound by *ki-ki*, which is also reflected in the linear order in addition to c-command. In neutral sentences *ki-ki* must precede the constituent containing the anaphora, thus, as opposed to *mindenki*, it cannot follow the bound element:

(6) Vívta a maga küzdelmeit *ki-ki / mindenki.
    fight.PAST.Sg3 the own fights.ACC *ki-ki / everyone

‘Everyone was fighting his own battles.’

A further difference is that ‘*ki-ki*’ cannot subsume negation and does not participate in negative concord:

(7) *Ki-ki nem / Senki sem viva a maga küzdlemeit.
    ki-ki not / nobody not fight.PAST.Sg3 the own fights.ACC

‘Nobody was fighting his own battles.’

**Analysis**

I propose that all these differences from *mindenki* can easily be accounted for presuming that *ki-ki* is a universal distributive quantifier that takes events as its restrictor. This is in line with Szabolcsi (2010), who suggests that two types of distributive quantifiers can be distinguished crosslinguistically: those having individuals in their sorting key and those having events in their sorting key. She proposes (referring to Balusu 2005) that numeral reduplication in Telugu and in Hungarian as well belongs to the latter group.

(8a) Mindenki megnézett két filmet.
    everyone watched.PAST.Sg3 two movies.ACC

(8b) Mindenki megnézett két-két filmet.
    everyone watched.PAST.Sg3 two-two movies.ACC

‘Everyone watched two movies.’

(8a) is vague or ambiguous between two readings: (i) every *x* is such that *x* watched two movies and (ii) every *e* is such that *e* is an event of *x* watching two movies. It is important to note, however, that (ii) is only possible if there were several movie-watching events. The ambiguity in (8b) is disambiguated by the reduplicated numeral (*két-két*): in can only mean that everyone watched different two movies. *Ki-ki* does not need reduplicated numerals to express the meaning corresponding to (ii), which also confirms that it performs quantification over events rather than individuals:

(9) ?Ki-ki megnézte két-két kedvenc filmjét.
    ki-ki watched.PAST.Sg3 two-two favourite movies.POSS.ACC

‘Everyone watched two of his favourite movies.’

The fact that *ki-ki* does not licence predicates involving states and activities can also be derived from its semantic properties. States and activities (i.e. atelic events) do not form discrete, delimited events *ki-ki* can quantify over (they have no boundaries). Therefore, there must be some kind of support element, usually a pronominal bound by the universal quantifier *ki-ki*, suggesting that the given participant is different for each variable, which creates the impression of multiple separate events.

The reason why negation is not possible in the immediate scope of *ki-ki* is quite straightforward: it is not possible to quantify over non-existing events. It is questionable whether negation can take scope over *ki-ki*; negating quantification over events is expected to be a kind of meta negation.