

Walenty A Polish Valence Dictionary

Filip Skwarski

Institute of Computer Science, Polish Academy of Sciences



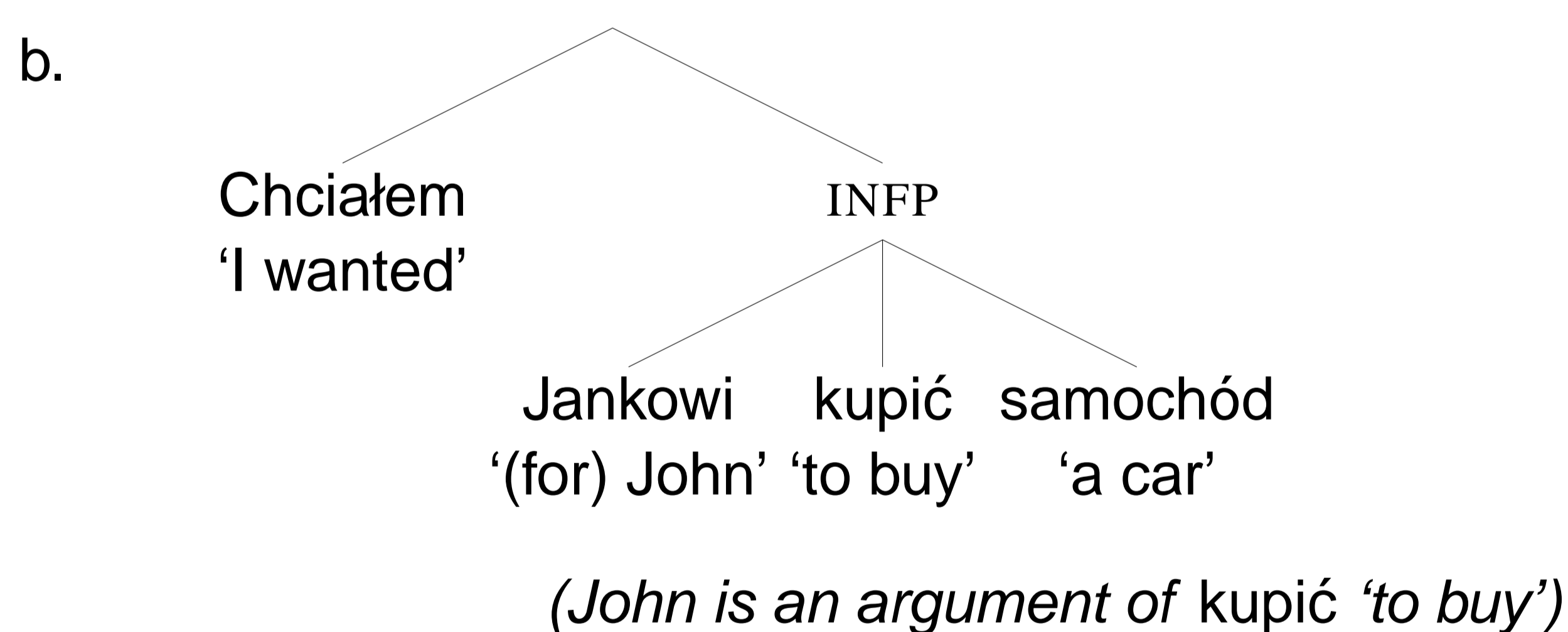
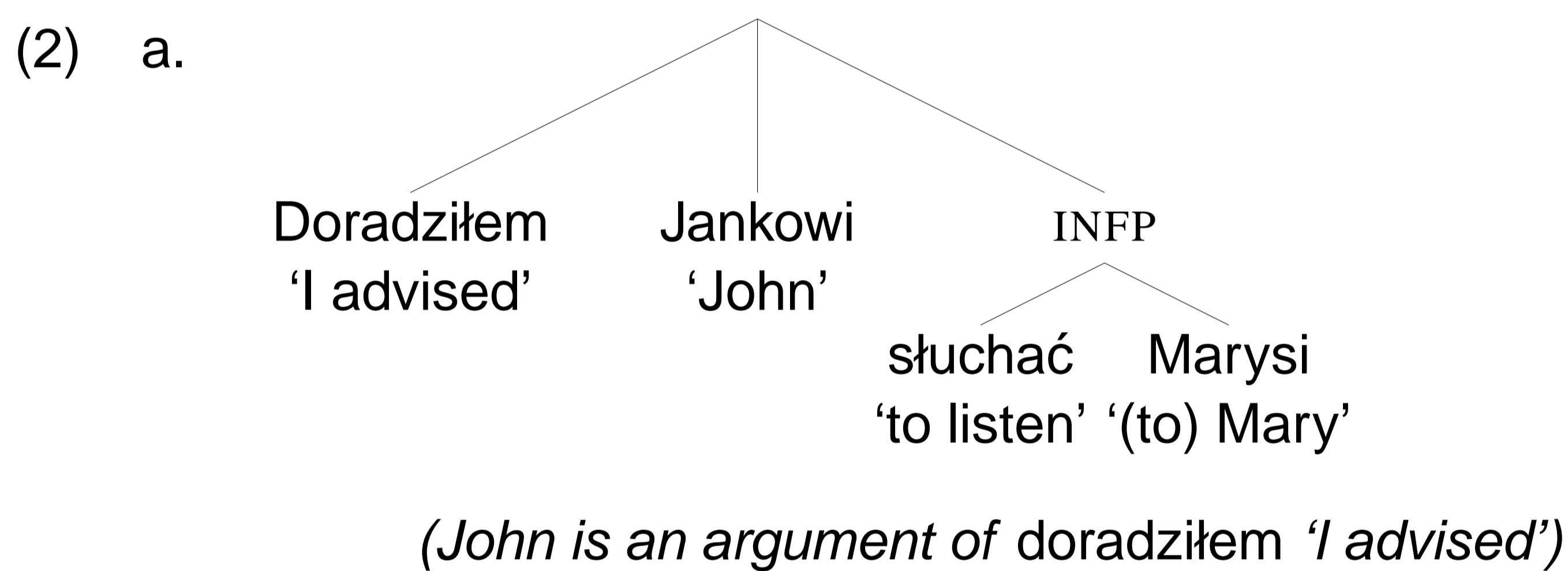
The Concept of Valence

Valence (argument structure) — a set of arguments introduced by a specific lexical entry (verbs & other predicates in particular).

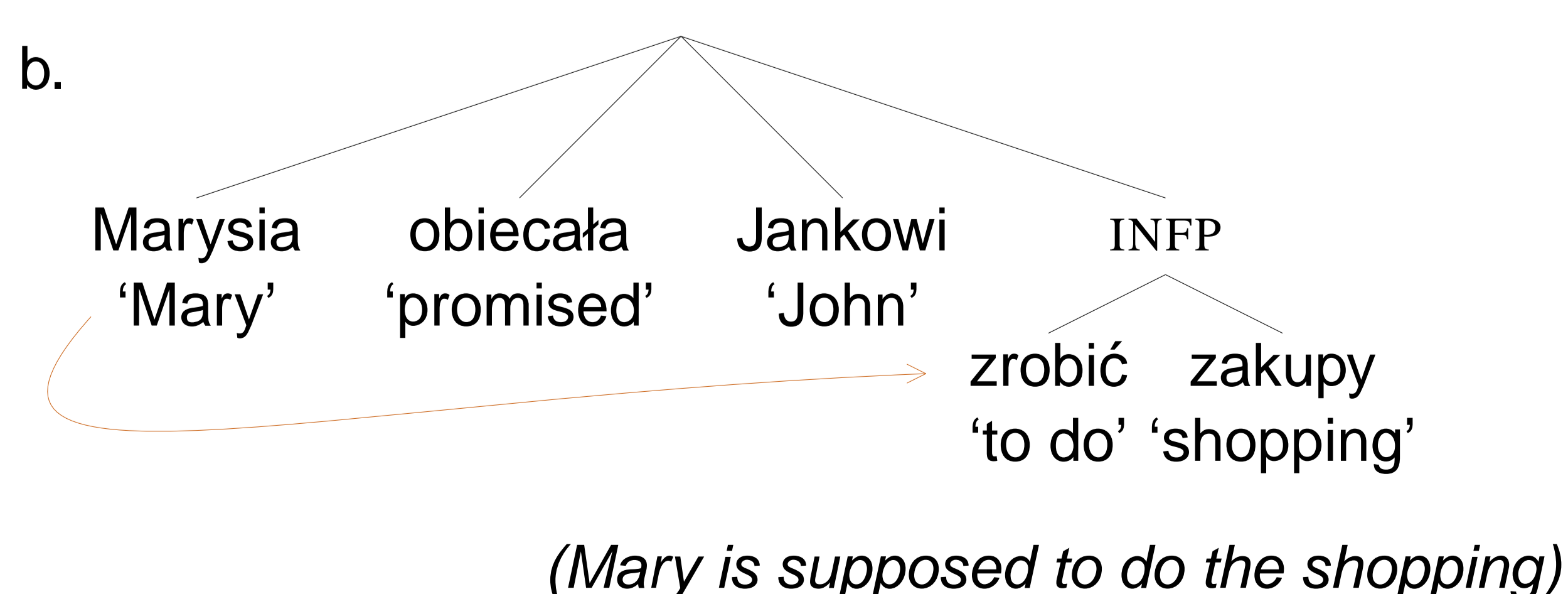
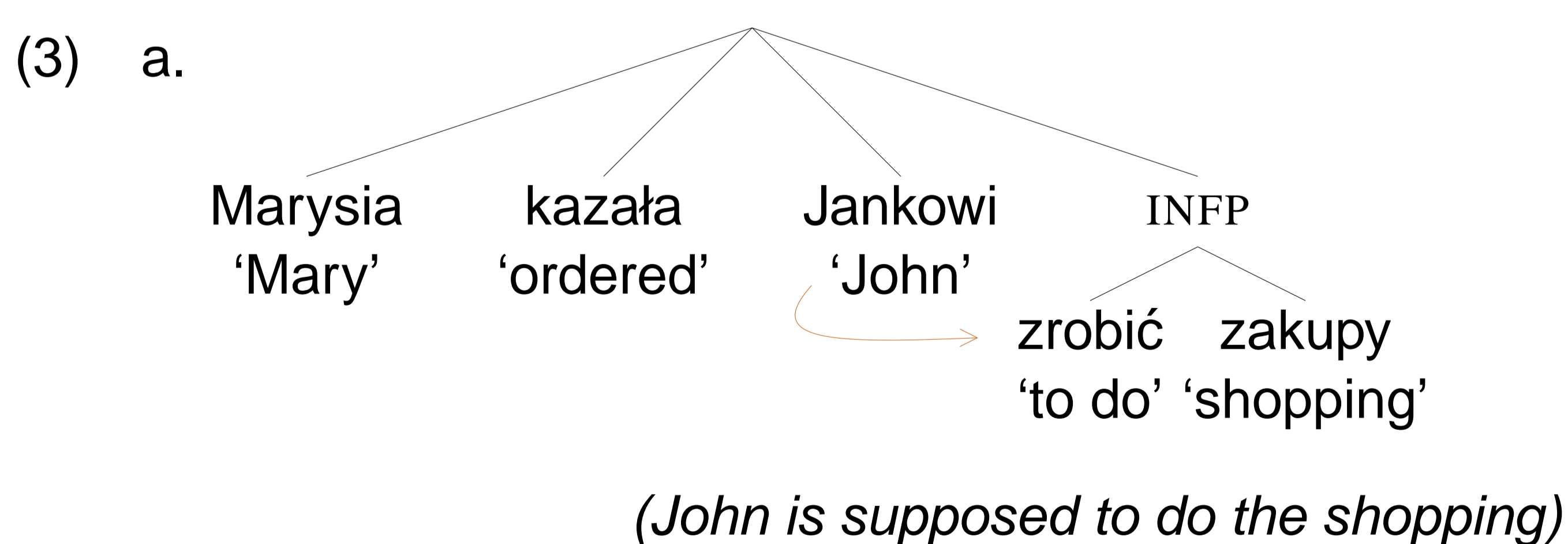
E.g. valence frames permitted by the English verb *believe*:

- (1) believe
 - a. noun phrase (subject)₁ + noun phrase₂
[We]₁ believe [him]₂
 - b. noun phrase (subject)₁ + *in*-prepositional phrase₂
[We]₁ believe [in him]₂
 - c. noun phrase (subject)₁ + *that*-clause₂
[We]₁ believe [that he is rich]₂
 - d. noun phrase (subject)₁ + noun phrase₂ + infinitival phrase₃
[We]₁ believe [him]₂ [to be rich]₃

In Polish (a free word order language), argument structure plays a crucial role in parsing:



Argument structures may also mark **control** relations (arrows):



The Valence Dictionary

Walenty — the Polish **VALEN**ce DicTionary — is an in-progress project to describe the valence frames of Polish predicates.

- ⇒ The first step is an adaptation of Świdziński's valence dictionary (around 1,400 entries) to the new format.
- ⇒ The second step will be to expand the valence description for an additional 1,000 most frequent Polish verbs.

The dictionary is being created by a team of annotators using a web tool designed for this purpose, programmed by Bartłomiej Nitoń, using a semi-automatic conversion of Świdziński's dictionary as a starting point.

Corpus examples demonstrating individual valence frames play a key role in the shaping of the dictionary.

Walenty is intended for use by the parser **Świgr**, the **Polish LFG Grammar**, and possible future projects.

Walenty includes the following information:

- ⇒ **Control** relations between arguments within a frame,
- ⇒ Possibility of **passivisation** of certain arguments,
- ⇒ Possibility of **coordination** of arguments of different types,
- ⇒ Idiomatic expressions,
- ⇒ Arguments with semantic prerequisites (place, manner, etc.) which may map to a number of syntactic patterns.

The Format

Sample entry (*dziwić* 'amaze'):

- (4) a. dziwić: imperf: subj{cp(intrel)} + {np(str)}
- b. dziwić: imperf: subj{npc(str,intrel)} + {np(str)}
- c. dziwić: imperf: subj{np(str); cp(że); ncp(str,że)} + {np(str)}
- d. dziwić: imperf: subj{np(str)} + {np(inst)} + {np(str)}

Associated examples:

- (5) a. *Dziwi [mnie], [kto w KZD wyraził zgodę na podobną rzecz].*
- b. *Dziwi [mnie] [to, dlaczego Stowarzyszenie Rozwoju i Promocji Ustki Zardzewiałą Kotwicę przyznało niezwiązanej z miastem agencji].*
- c. *... to wtedy nie dziwi [[ta pozorna dualność praw] i [że nie można dojść do jedności]] ...*
- d. *Natomiast [stan kamiennych "przyspieszaczy" nurtu rzeki] dziwi [laika] [swym zaniedbaniem].*

Sources and References

Świdziński, Marek (1994). *Syntactic Dictionary of Polish Verbs*, Uniwersytet Warszawski / Universiteit van Amsterdam.

A preliminary version of Walenty is currently available under the CC BY-SA licence at: <http://clip.ipipan.waw.pl/Walenty>