

ANNOTATION OF ADVERSARIAL AND COLLEGIAL SOCIAL ACTIONS IN DISCOURSE

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Overview

- Introduction
- Social Actions
- Data Collection and Annotation
- Conclusions

Introduction

- Discourse taking place over social media is focused around the social engagements between participants.
- Individuals often participate in these social engagements to further their own social goals.
 - Maintain an existing role such as being an authority or being in power.
 - Obtain a new role, such as pursuing power.

Introduction

- Discourse taking place over social media is

Discourse is “a language behavior that typically involves multiple utterances and multiple participants”
(Grosz and Sidner, 1986)

Interpersonal Relationships

We focus on the social goal of an individual *maintaining a relationship* with a second single individual.

In particular, we wish to address the intentions of individuals whose goal is related to a *collegial* or *adversarial* relationship.

We want to understand these relationships for groups communicating in English and groups communicating in Chinese.

Interpersonal Relationships

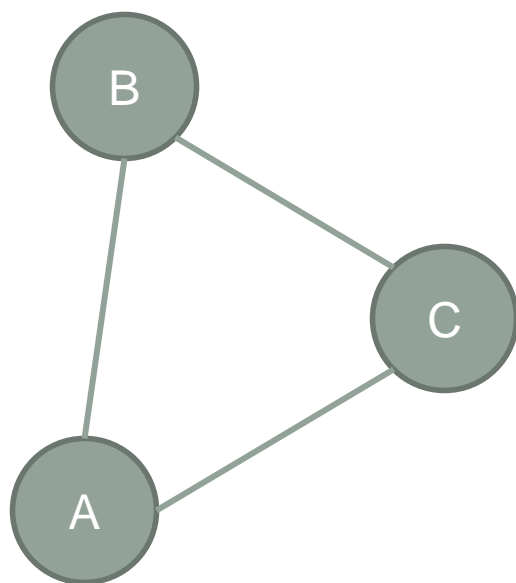
Collegial

- Cooperating with others in order to reach a common goal or ideal.
- Has importance at a personal, interpersonal, and group level

Adversarial

- Meant to explicitly point out opposition or dislike for other participants.
- Adversarial individuals often are not following the cooperative principle of dialogue as formulated by Grice (1975).

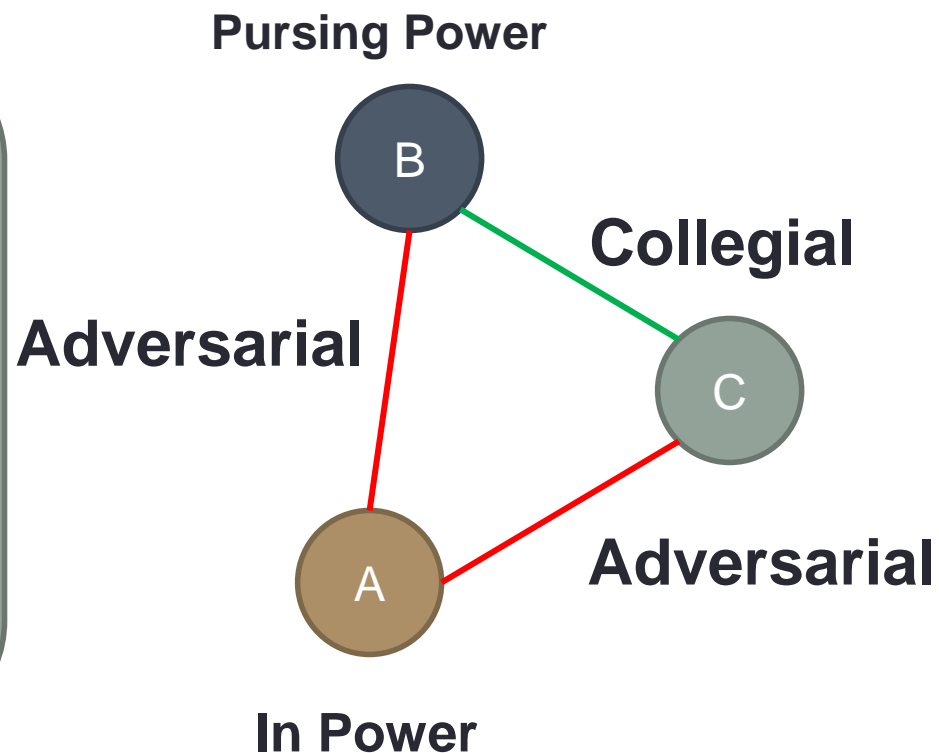
Why Social Goals?



Interaction Network
where the nodes are participants and an edge exists between two nodes if the participants interacted.

Why Social Goals?

Enhancing the network with social goals facilitates a deeper understanding of group structure and allows inferences to be made on participants' intentions and possibly future states of the group.



What does “social” mean for Discourse Processing?

- Adopting the work of Grosz and Sidner (1986) on the “Attentions, Intentions, and the Structure of Discourse”

Linguistic Structure

- Topical shifts (Cassell et al., 2001)

Attentional State

- Local coherence (Barzilay and Lapata, 2005)

Intentional Structure

- Dialogue Acts?

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Social Intentional Structure

- ~~Dialogue Acts?~~

Identifying Social Intentions

A I think the link to Smile (magazine) is relevant as Smile targeted the same audience, had a similar seeming mix of articles (girly lifestyle and serialised manga) and could be thought of as a predecessor to Shoyo Beat . Thus I felt it was relevant as a see also .

B To be a predecessor, it would need to be from the same publisher, not a different one . Animerica Extra is the predecessor of Shoyo Beat and was Smile's direct competitor . If anything, the see also would be between those two not between Smile and Shoyo Beat which is from a different decade, and thus had a different audience even if it was a similar age range .

A Not necessarily so , as Smile broke the ground for an English-language girls' manga magazine, (in that sense it is a predecessor, similar to Hana monogatari being a predecessor for Marimite) and that is why Smile is relevant as a see also to Shoyo Beat .

B I disagree . It breaking ground doesn't make it a relevant see also for ever girls' manga magazine afterwards (nor does either article have any actual reliable source providing such a connection) . At best, it is an appropriate see also for its actual contemporary . There is almost no semblance to Shoyo Beat and its being first does

A Perhaps not, it was December '98, AE may have been first mentions the Shoyo Beat book imprint will live on, doesn't Basket . I think Smile is similar enough to Shoyo Beat to warrant mentions them, but it does not connect them . Again, I c based on Shonen Jump . No other magazine is cited as a p

B Requiring it to be "per reliable sources" is adding a require sources is usually good (just because then you can talk abo

A . The mere fact that they're mentioned in the article, both manga magazines, and people who are interested in Shoyo

B Being mentioned in an article as examples of girls magazine token, ever film article would have see alsos to some 2 do: the same genre . Just because both are girls magazines me be linked by a see also . See also is not just a catch all for a ever manga magazine in existence . But we don't. There are

**Speak
er**

Social Actions

A

SOLIDARITY

B

SUPPORTIVE BEHAVIOR

A

DISAGREEMENT

B

DISAGREEMENT

A

DISRESPECT

B

DISAGREEMENT



**Model the social intentions
as social actions.**

Identifying Social Intentions

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Social actions are pragmatic speech acts that signal a dialogue participant's social intentions. Signaled with a variety of cue phrases as well as through a discourse participant's observation or violation of social norms, or expectations of socially appropriate responses.

CHALLENGE CREDIBILITY

B

2 x DISAGREEMENT

Social Actions

Set of nine social actions broken down into *collegial* and *adversarial*.

Social Actions

Set of nine social actions broken down into *collegial* and *adversarial*.

Derived from work in psychology on conflict and cooperation (Brewer and Gardner, 1996; Deutsch, 2011; Jehn and Mannix, 2001; Owens and Sutton, 2001).

Social Actions

Collegial

Agreement

Statements that a group member makes to indicate that he/she shares the same view about something another member has said or done.

Offer Gratitude

A sincere expression of thanks that one group member makes to another.

Solidarity

Statements that a group member makes to strengthen the group's sense of community and unity.

Supportive Behavior

Statements of personal support that one group member makes toward another.

Social Actions: Agreement

Agreement can act as an affordance to an individual or as a means to establish solidarity between individuals.

Social Actions: Agreement

Agreement can act as an affordance to an individual as a means to establish solidarity with other individuals.

I agree

同意A所言，所以還是先繼續保護著吧。

I agree with what A said, so just keep the protection.

I am not disagreeing with you

Social Actions: Offer Gratitude

Even in the absence of any major differences within a group, the expression of an in-group bias and out-group bias (Brewer, 1979) between individuals still takes place.

Social Actions: Offer Gratitude

Even in the absence of any major differences within a group, the expression of an in-group bias (Brewer) takes place.

Thanks!

回應：谢谢你的意见

response: thanks for your opinion.

Your input is always welcomed!

Social Actions: Solidarity

Language indicative of a desire for group solidarity encapsulates the establishment and maintenance of shared group membership. Group membership can be expressed at either the relational level or the collective level (Brewer and Gardner, 1996).

Social Actions: Solidarity

Language indicative of a desire for group solidarity encapsulates the establishment and maintenance of shared group membership. Group membership can be expressed at either the relational or the individual level (Brewer and Gardner, 1996).

我是serpent，报名
加入榴弹发射器班。

I am serpent, I enroll into
grenade launcher class.

**We're all in this
together!**

Social Actions: Supportive Behavior

Supportive Behavior, or cooperation, lies at the center of group dynamics. Cooperation is correlated with both overall group performance and managerial ratings of group effectiveness (Campion et al., 1996).

Social Actions: Supportive Behavior

Supportive Behavior, or cooperation, lies at the center of group dynamics. Cooperation is

Keep going!

both overall group

and managerial ratings of group

(Campion et al., 1996).

加油啊

Do your best

**Your decision is
excellent!**

Social Actions

Adversarial

Challenge Credibility	Attempts to discredit or raise doubt about another group member's qualifications or abilities.
Disagreement	Statements a group member makes to indicate that he/she does not share the same view about something another member has said or done.
Disrespect	Inappropriate statements that a group member makes to insult another member of the group.
Relationship Conflict	Personal, heated disagreement between individuals.
Undermining	Hostile expressions that a group member makes to damage the reputation of another group member.

Social Actions: Disagreement

Disagreement can act as a way of showing opposition. Repeated and contentious disagreement is a form of hostility.

Social Actions: Disagreement

Disagreement can act as a way of showing opposition. Repeated and contentious disagreement is a form of hostility.

I disagree

恕本人不認同。
sorry, I can not agree.

**I see your point, but
cannot agree.**

Social Actions: Challenge Credibility

Challenging credibility can be used by an individual to lower the status of other group members (Owens and Sutton, 2001).

Social Actions: Challenge Credibility

Challenging credibility can be used by an
to lower the status of other group
members and Sutton,

Prove your lies!

不知可有其他依據？
I do not know if you have other
evidence?

**X doesn't know what he
is talking about.**

Social Actions: Disrespect

Disrespected individuals often feel they have been unjustly treated due to the disrespectful action, causing a social imbalance between them and the perpetrator (Miller, 2001).

Social Actions: Disrespect

Disrespected individuals often feel they have been
the disrespectful action,
ance between them and the
perpetrator (Miller, 2001).

**Do you speak English
well?**

**你有种的话，请表明
你的教派身份。**

if you have the guts, show your
religious status.

**You are a gigantic
hypocrite you know
that?**

Social Actions: Relationship Conflict

Relationship conflict is a personal, heated disagreement between individuals (Jehn and Mannix, 2001).

Social Actions: Relationship Conflict

Relationship conflict is a personal, heated disagreement between individuals / individuals

**your arrogant
blathering**

久遠認為也有可能
是閣下眼睛有問題，
沒看見來源。

I think it is possible that you
did not see the sources
because your eyes have a
problem.

**I consider it offensive for you to
assert that I insist on turning every
interaction into a personality
conflict.**

Social Actions: Undermining

By definition undermining is meant to damage or weaken. Undermining a goal is meant to erode the support or weaken the stance of the goal.

Social Actions: Undermining

By definition undermining is meant to damage or
a goal is
the star

**And people you quoted
aren't historians**

就像某人说这条目是他建的
的就不让其他任何人修改
一样荒谬。

It is ridiculous that certain people
said that he built the item and he
will not let other people edit it.

**This is making a
mountain out of a
molehill**

Data Collection



**Wikipedia
Talk Pages**



**Chat
Transcripts**

PureBB Forums
Unfortunately no one can be told what PureBB is - you have to see it for yourself.

Home | Purbb | News | Features | Support | Help | Rules | Search | Register | Login

You are not logged in. Please login or register.

Threads 1.3.3 and the beta for previous versions has been released.

Forum	Topics	Posts	Last post
Purbb news News and announcements are listed here. (Moderated by Gargal, Slakki, Ullin, Sissak)	106	2,403	2009-05-21 11:23:54 By Parvati
Purbb feedback requests Do you have something to Purbb? Post itz here! (Moderated by Gargal, Slakki, Ullin, Sissak)	1,263	7,684	2009-05-01 11:03:22 By Parvati
Purbb discussions Anything related to Purbb that doesn't fit into the other Purbb forums goes here. (Moderated by Gargal, Slakki, Ullin, Sissak)	61	242	2009-05-20 24:40 By Prasad.K
Forum 1.3			
Purbb 1.3 bug reports Post a Purbb 1.3 bug? Report it here. Use a Support Bug form for security bugs please. (Moderated by Gargal, Slakki, Ullin, Sissak)	92	423	2009-05-21 08:53 By Prasad.K
Purbb 1.3 extensions Do you want some more features in your Purbb 1.3? Are you extension developer? Post here. (Moderated by Gargal, Slakki, Ullin, Sissak)	761	3,800	Today 11:23:29 By Slakki
Purbb 1.3 translations Are users related to Purbb 1.3? Add it from here. (Moderated by Gargal, Slakki, Ullin, Sissak)	705	4,310	Today 11:23:33 By Parvati
Purbb 1.3 additions Purbb 1.3 modifications, wishes, language packs and integrations live here. (Moderated by Gargal, Slakki, Ullin, Sissak)	147	670	Today 11:03:08 By Parvati
Purbb 1.3 show off Show off your Purbb 1.3 in the world here. (Moderated by Gargal, Slakki, Ullin, Sissak)	57	215	2009-05-20 08:28:47 By Prasad.K

**Threads In
Public
Forums**

Annotation Procedures

- Annotation was done at the sentence level:
 - Sentences were given in order that they appeared in the discourse along with the speaker.
 - Each sentence could be assigned zero or more social acts
- Annotation was performed by two native language speakers.

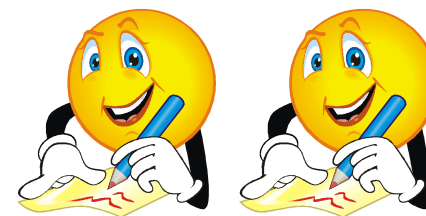
Annotation Procedures



**Annotators were only given the social act definition.
Began annotating separately on small set of data.**

Annotation Procedures

Annotators then worked together in language-pair teams to create guidelines on what constitutes a manifestation of each of the social acts.



Annotation Procedures



They then went back to annotating independently according to their agreed upon guidelines.



Annotated Data

English

- **215 Discourses**
- **21,067 sentences (~5 sentences per post).**
- **4,486 sentences (21.3%) had at least one social act annotated.**

Forum	Topic	Posts	Views	Last post
Public	Public	1,262	7,494	2025-02-11 08:52
Public	Public	92	612	2025-02-11 08:52
Public	Public	791	3,899	2025-02-11 08:52
Public	Public	792	4,289	2025-02-11 08:52
Public	Public	141	876	2025-02-11 08:52
Public	Public	37	215	2025-02-11 08:52

Threads in
Public
Forums

Annotated Data

Chinese

- 292 Discourses
- 24,339 sentences (~3 sentences per post).
- 4,260 sentences (17.5%) had at least one social act annotated.

Topic	Posts	Posts	Last post
1. 2018年12月12日	1,262	7,494	2018年12月12日
2. 2018年12月11日	81	240	2018年12月11日
3. 2018年12月10日	1,111	6,380	2018年12月10日
4. 2018年12月9日	141	876	2018年12月9日
5. 2018年12月8日	17	113	2018年12月8日

Threads in
Public
Forums

Speaker

1

Turn 2] As I understand it, 'East Timor Defence Force' is considered outdated. **While it was commonly used when the force was established, almost all english-language publications now use 'F-FDTL'. 'Military of East Timor' is a generic name, and I agree that it's rarely used and not a great title.**[Agreement] I'd prefer 'Timor Leste Defence Force' as this seems to be the direct translation, but this would be inconsistent with the other Wikipedia articles on the country. **Should we be bold and move this article to 'Timor Leste Defence Force'?**[Solidarity] P2

Speaker

2

Turn 3] I so totally agree with you. [Agreement] 'Timor Leste Defence Force' is it. [Agreement] **The only reason I did not propose that was the failure to change the country page from East Timor to Timor Leste, a decision that I feel was extremely discourteous of Wikipedia considering the government's specific request that it be referred to as Timor Leste.**[Solidarity] If you have worked there you will know that everybody uses 'Timor Leste', even the ADF but the Australian DFAT uses East Timor although the more enlightened Kiwi embassy call it TL. I suggest we leave it for 48 hours to see if anyone has any strong feelings and then change it to 'Timor Leste Defence Force' with diverts from F-FDTL and FDTL P1

Annotation Results

Mutual F-Measure for Adversarial and Collegial Social Actions

English

	F-Measure	No. of Sentences
Adversarial	79.9%	3,714
Collegial	89.7%	772
Neither	89.4%	16,581
Average	87.8%	–

Chinese

	F-Measure	No. of Sentences
Adversarial	73.0%	2,037
Collegial	85.5 %	2,222
Neither	79.9%	20,079
Average	80.3%	–

Annotation Results

	English		
	# Annotated	Kappa	F-Measure
Agreement (+)	295	0.38	76.5%
Challenge Credibility (-)	1,113	0.36	33.8%
Disagreement (-)	434	0.46	71.0%
Disrespect (-)	367	0.24	53.5%
Offer Gratitude (+)	108	0.44	79.9%
Relationship Conflict (-)	399	0.13	21.3%
Solidarity (+)	100	0.52	41.2%
Supportive Behavior (+)	269	0.36	68.1%
Undermining (-)	1,401	0.35	49.3%

Annotation Results

	Chinese		
	# Annotated	Kappa	F-Measure
Agreement (+)	315	0.50	54.5%
Challenge Credibility (-)	409	0.38	45.4%
Disagreement (-)	555	0.07	13.1%
Disrespect (-)	214	0.36	41.5%
Offer Gratitude (+)	300	0.88	89.9%
Relationship Conflict (-)	93	0.42	56.8%
Solidarity (+)	574	0.41	44.0%
Supportive Behavior (+)	1,034	0.84	88.2%
Undermining (-)	766	0.49	58.0%

Annotation Comparisons

- Dialogue Acts
 - Allen and Core (1997) report Kappa values ranging from 0.15 to 0.76.
 - Geertzen et al. (2008) report Kappa values ranging from 0.2 to 1.0 for naïve and 0.48 to 1.0 for expert annotators.
- Social Acts
 - Bender et al. (2011) report Kappa values ranging from 0.13 to 0.63.

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- Social Acts
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English: 0.13 to 0.52 and Chinese: 0.07 to 0.88

Annotation Analysis

- Overlaps in social actions vary between languages.
- Chinese
 - Disagreement – Relationship Conflict
 - Disagreement – Undermining
- English
 - Relationship Conflict – Challenge Credibility
 - Undermining - Disrespect

Conclusions

- Created a set of social acts based on literature from work in psychology of cooperation and conflict.
- Annotated a corpus of online discussions communicated in English and Chinese with the set of social acts.
- Mutual F-Measure is good for “aggregate” annotations and varies for individual social acts.

Conclusions

- **Question:** Given the Kappa and Mutual F-Measures for individual social acts can reliable social act taggers be constructed?
- **Question:** How reliable do the taggers need to be for accurately modeling social goals and can we reach this?

THANK YOU [OFFER GRATITUDE]

谢谢 [OFFER GRATITUDE]

감사합니다 [OFFER GRATITUDE]